

Corticeira Amorim: Uncorking the future

Converting a cork stoppers business into a knowledge company

– An organizational and strategic evolution –

Field of study:

Family-Owned Businesses and Strategic Management

Purpose:

Dissertation for obtaining the Degree of Master in Business Administration

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Date:

June 2016

I dedicate this work first to my wife, Sónia, as my main source of support, encouragement and inspiration during the challenges of graduate school and life, and to my lovely children, Francisco, Duarte and Rita, for allowing me to be much less available at home than they would like during the past year, notably after the previous very difficult two years of my MBA.

This work is also dedicated to my parents, João and Teresa, and to my grandmother, Argentina, who have always incentivized and loved me unconditionally, and whose good example have taught me to work hard for what I aspire to achieve.

Lastly, I dedicate this work to all those men, in the marvelous region of Alentejo, in the South of Portugal, who, under burning temperatures, often above 45° C, carefully extract the cork from the cork oaks, allowing us to benefit of such a wonderful product.

Acknowledgments

The preparation of the case of this work project was made possible through the generous co-operation of Corticeira Amorim, S.G.P.S., S.A. and Amorim & Irmãos, S.A., who also allowed the reproduction of the pictures presented in the case, whose rights belong to Arquivo do Grupo Amorim. Special thanks to António Rios de Amorim for the long interview given in 2015, which was the main basis to develop the case, to Prof. Miguel Cabral, for the insights provided at a later stage, in 2016, which confirmed some of the understandings, and also to the staff of Amorim & Irmãos, S.A., who kindly gave some fine tuning suggestions at the end of the process.

I am also thankful to Prof. Miguel Pina e Cunha, my supervisor, for suggesting the format and theme of this work project – based on an interview conducted to the company's CEO –, and particularly for his clear and enriching guidance throughout the whole process.

I would like to thank also Prof. Soumodip Sarkar, who helped me further specify several data and information, and also improve the clarity and fluidity of the text.

I thank finally Prof. Arménio Rego for his advice and for lending me some materials about the company's history and Alexandre Dias da Cunha for helping me connect with Corticeira Amorim.

A final word to several friends and MBA class mates, who went through drafts of the text and gave me very useful suggestions to improve it.

Abstract

Corticeira Amorim is, for many years, the worldwide leader in cork manufacturing, setting the pace and pointing the way forward in its sector. However, in the late 1990s, cork stoppers market, since always the company's main product, was very seriously threatened due to the emergence of a strong substitute – the plastic stopper – ready to dethrone the cork stopper.

The two main reasons for its emergence were a huge increase in the cork price, which tripled between 1994 and 2000, and growing customers' complaints about TCA, deemed responsible for damaging the taste of wine in bottles using cork stoppers.

This instigated an organizational and strategic change at Corticeira Amorim in the beginning of the 21st century, converting it from a cork stoppers business into a knowledge company, committed to add value to cork no matter the format.

The fact that the company, despite its big size, is a family owned business has played an important role in its evolution and strategic options, throughout its whole history and notably in this critical moment, which denotes a long term concern and deserves analysis.

The strong investment in R&D and Innovation, and the growing recognition of knowledge, in its different forms, as a potential source of competitive advantage, also in usually less high-tech sectors, is another perspective to be discussed.

This context was the basis for the preparation of a pedagogical case study and teaching note. The case was field based, notably with interviews, as primary data source, and also compiled from published sources, as secondary data source. It is intended to be used as the basis for class discussion rather than as an endorsement, source of primary data or illustration of the effective or ineffective handling of a management situation.

Key words

Family owned businesses, strategic management, long term management, leadership, knowledge management, explicit and implicit knowledge, R&D and innovation, internationalisation, verticalisation, change, stakeholders theory, corporate social responsibility, business sustainability, cork manufacturing, Portugal.

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INTRODUCTION

Corticeira Amorim is, for many years, the worldwide leader in cork manufacturing. However, in the late 1990s, cork stoppers market, since always the company's main product, was very seriously threatened due to the emergence of a strong substitute – the plastic stopper. The two main reasons for its emergence were a huge increase in the cork price and growing customers' complaints about 2,4,6, Trichloroanisole (known as TCA), deemed responsible for damaging the taste of wine in bottles using cork stoppers. This instigated an organizational and strategic change at Corticeira Amorim in the beginning of the 21st century, converting it from a cork stoppers business into a knowledge company, committed to add value to cork no matter the format.

The analysis of the main potential drivers of this evolution, as well as its outcome, was the major *leitmotiv* to develop a pedagogical case study – introducing the company's history, since its inception until nowadays – and a teaching note, as Work Project of The Lisbon MBA Part Time 2013-15. The importance of cork oaks in the Mediterranean area, the fact of cork being a traditional product and also the basis of a major Portuguese industry cluster, as well as the leadership position of Corticeira Amorim, despite its family ownership, brought an additional interest.

The fact that the company, despite its big size, is a family owned business has played an important role in its evolution and strategic options, throughout its whole history and notably in this critical moment, which denotes a long term concern and deserves analysis. The strong investment on R&D and Innovation, and the growing recognition of knowledge, in its different forms, as a potential source of competitive advantage, also in usually less high-tech sectors, is another perspective to be discussed.

The case was field based, notably with interviews, as primary data source, and also compiled from published sources, as secondary data source. It is intended to be used as a basis for class discussion rather than as an endorsement, source of primary data or illustration of the effective or ineffective handling of a management situation. The case stimulates the debate within the context of, at least, two broad areas, which can be addressed independently: **Family-Owned Businesses (FOBs)** and **Strategic management**. It provides information and insights to guide students throughout the discussion of themes and concepts within these areas, such as family businesses, long term management/leadership, patient capital, verticalisation, internationalization, incremental/radical innovation, knowledge/ innovation management and explicit/implicit knowledge.

The teaching notes (parts 1 and 2), including the objectives, respective literature review, roadmap for discussion and conclusions are presented and could be used independently of each other.

The work project is composed of the case, teaching note, conclusion, exhibits, case's notes and sources, and finally teaching note's references.

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CASE

“We did not choose the easier path. We stayed on the side of cork. We stayed on the good side.”

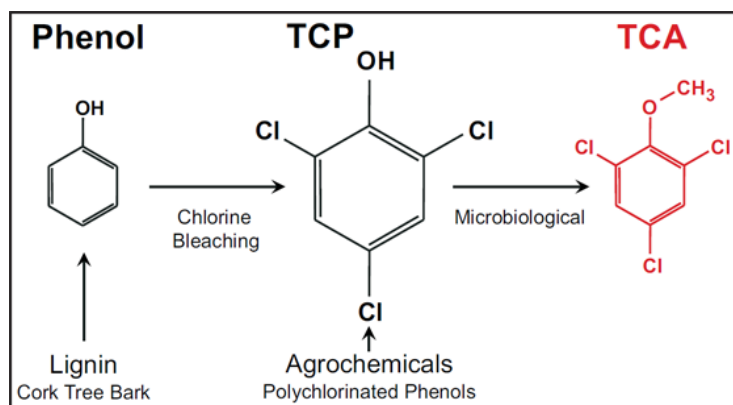
“Amorim family identifies itself with cork and cork is also identified with the family.”

“(…) not the belief in cork but, more than that, the belief in its potential to evolve.”

António Rios de Amorim

Corticeira Amorim CEO

One foggy morning, one of many in Mozelos (North of Portugal), where Corticeira Amorim has its headquarters, while driving to the office, António Rios de Amorim (ARA), the company's CEO and great grandson of the founder, marvelled at the sunrise behind some trees. He thought about how crucial cork oaks were for a whole industry, as well as how essential their preservation was for this sector and to his company in particular, and even to his family. He also wondered whether it was fair to consider that it might well have been his family that fuelled cork's success, rather than the other way around. In any case, what was clear was that the cork and Amorim family were definitely in a symbiotic relationship.



However, at the turn of the millennium, ARA was also fully aware that the TCA problem was posing a tremendous challenge to Corticeira Amorim, since it was deemed responsible for damaging the taste of wine in bottles using cork stoppers – known as cork taint (see **Figure 1**).

Figure 1 - Cork taint in wine produced by 2,4,6 - trichloroanisole (TCA)

At that precise moment, the whole company's history – since the inception, its family roots and the several phases it passed by, with ups and downs – flashed in his mind, part of it, from the stories told by his parents and grandparents at the fireplace. However, he knew that he was right then, facing perhaps the biggest challenge ever, with not only the company's leadership position but the whole business and sector seriously threatened.

He couldn't avoid questioning himself: *“What shall we do? Shall we go for the plastic stoppers business? Or do we have in fact a much better product, with a superior quality, but whose features could be clearly improved?”* It was a dilemma not only for him, but for the whole family. He was also

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acutely aware that the survival of not only his company, but perhaps the entire industry hinged upon his making the right decision.

On the one hand, being a family business, he was conscious that the company had more independence and liberty than a non-family business to make any changes, despite involving some risks. On the other hand, his family had a reputation that was built around cork, a legacy inherited from his ancestors, which could not only be respected but also improved for the successors. Américo Ferreira de Amorim, the previous CEO and ARA's uncle, liked to say that it was not exactly about material possessions but the spirit, the solid and very strict education received, and also a consciousness of duty and enthusiasm for work, a respect for others, in the sense of justice for all, that mattered mostⁱ. Maybe without the family dimension, the devotion to cork would not be so strong. ARA remembered, from his MBA, how most successful responses by incumbents to disruptive challenges involved some form of adopting rival technology, sometimes even buying the “insurgents”. Yet, the leadership in FOBs has specificities, since the contextual dimension of this type of firms is different from that of a normal company not family-owned.

Cork's economic, social and environmental value plays a major role in several countries

Cork is the bark of the cork oak – *Quercus Suber L.* (see **Figure 2**) –, which is stripped for the first time when it is around 25 years old, and is then harvested every 9 years, during the oak's lifespan of over 200 years, on average. It is a fully natural plant tissue ($C_{123}H_{182}O_{56}N$), very light, elastic and compressible, impermeable to liquids and gases, thermal and acoustic insulator, fire retardant, highly abrasion resistant, hypoallergenic and has a natural touch.



Figure 2 - Cork oaks

Although being difficult to set the origins of cork usage, the remnants spread over several Mediterranean countries are a proof of its use by several ancient civilisations, well before Christ. The ancient Egyptians used cork in fishing or for soles in sandals, and the Romans used cork already as closure for their amphorae, and in the roofs and ceilings of their houses. Nevertheless, only in the 17th century, Dom Pérignon, the French monk famous for his champagne, was able to, according to some reports, revolutionize cork's usage in the wine industry

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Nowadays, cork's unique set of features gives rise to a wide array of products, ranging from cork stoppers – which represent 70% (see **Exhibit 1**) of the cork products exported from Portugal – to materials used in diverse areas, such as construction, fashion, sports, energy production or even spacecraft, among many others.

Cork oak forests spread for an area of over 2.1 million hectares in the West Mediterranean basin, with 90% of it located in Portugal, Spain, Morocco and Algeria (see **Exhibit 2**). Every year more than 200,000 tons of cork is harvested. Portugal, which is by far the biggest worldwide cork producer, with a third of the total area of cork oak, is responsible for nearly half of the production, 49.6% (see **Exhibit 3**).

Cork oak forests (or “montados”) are an important environmental, social and economic asset in the Mediterranean countries. They support a unique and fragile ecosystem, habitat of several endangered species (such as the Iberian lynx, of which only remain less than 150 adult individuals, the Iberian Imperial Eagle or the black vulture), and which fight the erosion and desertification that grasses in those areas (in Portugal it occupies 23% of the national forest areaⁱⁱ). They also retain millions of tons of CO₂ – a cork oak forest can absorb 14.7 tons per hectareⁱⁱⁱ – and it is remarkable that the cork oak retention ability increases during the natural regeneration that follows each stripping.

At the same time, in Portugal, there are more than 1,200 companies in the cork's value chain, employing more than 9,000 people^{iv}, with cork representing around 2% of the Portuguese exports of goods (90% of the manufactured cork is exported)^v. Nothing is wasted from the cork oak. Acorns are used as animal fodders and in cooking oils, leaves are used also as fodder and natural fertiliser, branches from tree pruning and decrepit trees provide firewood and charcoal and still the tannins and natural acids of the wood are used in chemical and beauty products. The cork oak industry is therefore well positioned to address, what John Elkington popularized in 1997^{vi}, as the “triple bottom-line”, around *profits, people* and the *planet*.

Since Portugal possesses a huge area of cork oak forests and with cork already known and used for many centuries in the Iberian Peninsula, it was not surprising, with the industrial revolution initiated in the 18th century, that sooner or later some entrepreneur would decide to exploit cork's potential in a more structured way, and some type of cork factory could well emerge in the country. It is in this context that the company, which later on became Corticeira Amorim, emerged to explore cork, sometimes also known as “*Portuguese gold*”.

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The world's cork products leader

Corticeira Amorim is the worldwide leader in cork manufacturing (with a share of around 40% of the cork stoppers sold each year), not only in figures but also setting the pace and pointing the way forward. It has diversified its business in several sectors and geographical areas with high growth potential throughout the five continents (see **Exhibit 4**).

Corticeira Amorim had annual revenues of 604 M€ in 2015 (surpassing 100 M€ of EBITDA), a revenue increase of almost 8% comparing to the 560 M€ achieved in 2014, with the Cork Stoppers Business Unit (BU) increasing nearly 10% (strengthening its market share) and the Composite Cork BU increased 17%. The group currently employs more than 3,500 people distributed in its different BUs.^{vii}

Annually, Corticeira Amorim produces more than 4 billion cork stoppers and sells an area of cork flooring equivalent to 1,900 football pitches. It has invested annually around 7.5 M€ in innovation and R&D, which has allowed it to submit 46 patents for registration over the last years and to have 34 units with the Forest Stewardship Certification (FSC).

Corticeira Amorim's **Mission** is *"to add value to cork, in a competitive, differentiating and innovative manner, in perfect harmony with Nature"*, being its **Vision** *"to generate return on capital invested in an appropriate and sustained manner, with differentiating factors at the level of product and service and with a workforce which has the desire to succeed"*.

To pursue its mission Corticeira Amorim has as its **Values**: Pride, Ambition, Initiative, Discretion and Attitude. It is at the forefront of technology and sustainability, contributing to make the cork viable and the cork oak forest preservation an example of green economy.

Moreover, in a world characterized by globalisation, increasing production specialization and growing competitiveness requires constant innovative approaches and new forms of companies' organization, as well as the strengthening of a fruitful interaction between firms at different levels in the value chain, so to constructively complement each other and as such to better address market demand. Corticeira Amorim plays an important role in the cork sector as market leader in the country which leads the worldwide production, manufacturing and commercialization of cork. It has promoted the approximation between cork production and the industry and induced overall sector innovation. It influences others with its view and its risks, exploring new applications for cork.

However, despite its strengths and impressive financials, the life of the company was never without its challenges, as a reading of its already rather long and rich history reveals.

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A cork family – for almost 150 years, from its birth in Gaia to the outer space

In the Douro region, there are some areas, such as Mogadouro and Macedo de Cavaleiros, with a micro-climate, which have a small quantity of cork oaks from where the Amorim family first started working with cork. In 1872 António Alves Amorim, the great grandfather of the current CEO, founded a manual cork stopper factory in Vila Nova de Gaia, Oporto, Portugal. If he had been alive today, he would not have recognized his own creation. A tiny operation by the river Douro ultimately gave rise to Corticeira Amorim, a FOB and a big company, the world leader in cork manufacturing, and a large economic group with interests in diverse areas. This would be beyond recognition from the humble start-up in 1872. The family, however, has always remained present, and it has still the majority of the capital of Corticeira Amorim and control over the Board of Directors.



Figure 3 - António Alves Amorimⁱ

Cork export (until the 1960s)

After some difficult times in the 1900s, and with the declining health due to the advancing age of António Alves Amorim, the company was nevertheless able to open a workshop in Santa Maria de Lamas and keep the firm on a steady track. Much of this owed to a united family, combined with his wife's stamina. Ana Pinto Alves did everything possible to keep the firm going.ⁱ

In 1922, the Amorim family inaugurated a new factory and formally established its first company Amorim & Irmãos, Lda, giving rise to the network of companies that now constitutes Corticeira Amorim. The partners – José, Manuel, Henrique, Américo, Ana, Rosa, António, Joaquim and Bernardina –, children of the founder, and thereby the second Amorim generation heading the company, brought new impetus to the activity.



Figure 4 - Children of António Alves Amorim and Ana Pinto Alvesⁱ

Their monthly profits from the factory were small, and these were immediately reinvested to assure the company's strong and solid growth. Each family member was different in their outlook and educational background, but they all contributed to the company each in his/her role, with final decisions only going ahead after securing agreement amongst all.ⁱ

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A few years later came the Great Depression, however fortuitously some new applications for cork, used in thermal and acoustic coverings, were discovered, and its by-products were therefore able to fuel the industry. The business was flourishing, with new firm infrastructures being either built or acquired. In 1935, the Amorim family bought a small warehouse in Abrantes, close to the Portugal's main cork oak forest area, to acquire cork directly from the tree growers. In 1939 this warehouse became a factory for preparing cork planks. It formed the first step in the integration of the raw material and cork stopper production phases to guarantee the quality of the final product.

Still in 1939, the nine brothers decided to reduce the shareholding in Amorim & Irmãos to five brothers, the resident active partners in direct contact with the company – José, Henrique, Américo, Ana and Rosa Alves de Amorim.



Figure 5 – José, Henrique, Américo, Ana and Rosa Alves Amorimⁱ

This had been a hard decision to make, however it also reveals courage to take painful actions during difficult times. The family was aware that their company could only exist through unity. The administration of their precious assets would be difficult with the other partners absent. This might appear to have contradicted the family spirit, but it didn't. It is as a tree with many boughs, which grow in different ways and shapes, but all part of the same tree and with the same sap running in their veins. One of the great dangers of a family business is to lose the core of the business, its strength. Inactive absent partners are a sure recipe for useless conflicts, which end up weakening the company.ⁱ

Regarding leadership succession, as Américo Ferreira de Amorim noted in an interview for a book about the family history, *"it is always a problem"*, however *"common sense is the basic rule"*. He further stressed that *"if it is possible to keep it within the family, with everyone's trustworthiness and general agreement, then fine"*, but *"an alternative solution [is] to choose someone capable, respected and liked by all the members of the family"*.ⁱ

In 1944, the Amorim family was challenged by a big fire which completely destroyed its cork factory in Lamas. It was again a moment for the family to show its verve. The brothers should have been tempted to divide the insurance money and the land could have been used for agriculture, but with determination and unity they were able to rebuild the company, as a duty, a mission.ⁱ

Portugal consolidated its position as the world's largest cork producer, with an annual production of 150,000 tons, nearly half of the worldwide production of 308,500, in 1947, according to the Food and Agriculture Organization of the United Nations (FAO).ⁱ However, the great majority of the cork

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was exported raw, to be processed in other countries. Finished products represented less than 17% of the cork sector exports in 1949^{viii}. The biggest worldwide centre for cork transformation was in Catalunya (Spain). ARA calls this as the “*cork export phase*” (during most of which the first and second Amorim generation assumed control of the company).

Meanwhile the four brothers – José, António, Américo and Joaquim Ferreira de Amorim –, sons of Américo Alves de Amorim, were being groomed for a life in leadership of the company. Their uncle Henrique Alves de Amorim, who had no sons, worried about the future of the company and began to involve his nephews in its running, giving them different roles. During their holidays, they already knew: the factory awaited them. The boys especially were always there helping the workers, learning all about raw materials, including the art of choosing cork stoppers, and accompanying the many production problems. But their will and capacity for hard work was the real inheritance from which they had to make a living.ⁱ

In 1953, following the death of Américo Alves de Amorim, the third Amorim generation assumed control of Amorim & Irmãos, Lda. It took the helm of the company and gave a new impulse to the Portuguese cork industry.

Development of the industrial basis (1960s – 1980s)

In 1958, Américo Ferreira de Amorim –grandson of the founder, and uncle of the current CEO, took a momentous decision that marked his place as a legendary president. Deciding to give cork a new momentum, he undertook a first trip to the former Soviet Union and a few other Eastern Bloc countries, which would open several markets and change the company from the beginning of the 1960s.



Figure 6 – Américo Ferreira de Amorim (1956)ⁱ

These markets represented a sizable share of revenues, of around 30%, and an important percentage of the profits. ARA states that “*the visionary perspective and capacity to take risks were noticeable at the third generation of the family*”. The broader and a more demanding market stimulated a (backward and forward) verticalisation strategy (a key differentiating factor of the group since then), to achieve world leadership in the production and export of cork products. Since Portugal was the largest cork producer worldwide, it was considered unacceptable that the cork industry fell in the hands of foreign companies, depriving the country of the largest profits from its raw material.

However, innovation creates frictions and risks which can turn out to be expensive. And for family members who grew up as part of a company and followed their ancestor’s ideas, change is a

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difficult process. The critical spirit, essential for transformation, does not come from assimilation and repetition, but from anxiety and rupture. In a family, this might be seen as a breach in solidarity, respect and tranquility. Nevertheless, the team of the sons of Américo Alves de Amorim was committed, coherent and evenly distributed amongst the various areas of the company, ensuring a solid base on which the new plans were being implemented. Américo Ferreira de Amorim emerged as the engine which pulled the train.ⁱ



Figure 7 – A family reunion, in the Lamas house (1959)ⁱ

In 1962 nearly 80% of the cork was still being exported raw, but things would quickly change (today only a few markets remain as mere cork buyers). The assumption behind the motto – *“not just one market, not just one client, not just one currency, not just one product”* – fuelled a new era at the company, already at the hands of the third Amorim generation. ARA calls it the phase of *“growth of the industrial basis”* of the company.

However, to put Américo Ferreira de Amorim’s plan into practice was no easy task. To begin with, there was the situation with the shareholders of Amorim & Irmãos. The company belonged to uncle Henrique, aunts Ana and Rosa, Américo Ferreira de Amorim and his brothers, and their cousins, sons of José Alves de Amorim. This latter share was headed by the eldest son, José Eduardo Amorim, who was not very sensitive to Américo Ferreira de Amorim’s growth and verticalization strategies. Moreover, the question of those family members present and those more absent of the daily business of the company were reawakened. These different opinions could well spell disaster for the destiny of the company. The uncles, aware of the estate they had built, were not receptive to projects which could put it at risk. For Américo Ferreira de Amorim the solution was to take off on his expansion plan on his own, with his brothers, and to create another company, immediately. However, at the last minute, uncle Henrique decided not to leave his nephews, as thus they launched themselves in this new phase all together.ⁱ

In 1963 Corticeira Amorim was formed with five partners: Américo Ferreira de Amorim, his brothers – José, António and Joaquim –, as well as uncle Henrique, each with 20%. It was an industrial

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unit for the production of cork granules and agglomerates, by transforming 70% of the waste generated from the cork stoppers manufacture.

In 1969, Américo Ferreira de Amorim and his brothers, who initially held 20% of Amorim & Irmãos, bought the whole company: they bought 40% from their cousins and received the rest from their uncle and aunts in recognition of their capacity.ⁱ

By avoiding the proliferation of shareholders, together with the acquisition and creation of several companies (as was usual in the company, dividends were never distributed, the profit was all reinvestedⁱⁱ), Corticeira Amorim broadened its verticalisation strategy and strengthened its internationalization objective, while at the same time taking the lead both in the quantity and quality of cork stopper production.

In 1972, half of the raw material exported was industrially manufactured, representing 75% of the value of Portuguese cork exports. Portugal became a cork manufacturing country with the Amorim family as its catalyst.

Over the following years Corticeira Amorim created a first processing plant outside Portugal, in Morocco – the second most important cork oak forest region worldwide –, it started producing cork rubber, also creating a company in Canada to market it, and it established Labcork for quality control, among many other initiatives.

However, the occurrence of two events in the late 1980s would have a huge impact in Corticeira Amorim. The first was Perestroika, which at first sight would appear to be a tremendous business opportunity, but for Corticeira Amorim it was dramatic, given the already established and consolidated position it had in the Eastern Bloc countries markets. Perestroika meant that the protected market was now open to business for Corticeira Amorim's cork rivals. The second, was Corticeira Amorim's decision to restrain its cork stoppers internal production capacity to a certain limit and to start purchasing its remaining needs from small cork stoppers manufacturers. At a certain point, Corticeira Amorim was producing internally only 30% of its needs. As a consequence, Corticeira Amorim's clients, distributors and importers, from countries such as France, Germany and others, started to question why buy from the company if they could establish themselves in Portugal and purchase cork stoppers directly to Amorim's providers.

Already working at the company, although not yet the CEO, ARA recalls that *“those developments pushed Corticeira Amorim to rethink completely its future orientation”*. It launched an initial public offering of its four largest companies, which permitted the consolidation of the accounts of all the group's cork operations and raised capital to kick off the following stage of its history, which ARA designates *“the internationalization phase”*.

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Internationalization (late 1980s and 1990s)

Despite some previous investments abroad, Corticeira Amorim's international orientation gained further importance from the late 1980s onwards. In 1989 it acquired the Swedish Group Wicanders, based in Gotenburg, one of the largest of the sector. That was an important step in the panelling business segment. Wicanders had two factories, one of them in Portugal, an increased line of products, a powerful and prestigious brand, and a marketing network based on a vast distribution and sales network, notably in Northern and Central Europe. As a result, the international operations grew enormously.

Ten years later, in 2000, two thirds of Corticeira Amorim's sales were channelled through its own network abroad, which ranked the company quite positively at three important levels of the value chain. The company (i) was present in the country which is the worldwide leader of cork production (therefore somehow controlling and benefitting from an easier access to the raw material), (ii) was the worldwide leader in cork manufacturing and (iii) became independent from third parties with regards to distribution, since it was using its own channels.

Nevertheless, this market leadership was not exempt from challenges. In the late 1990s, the cork stoppers market, which represented close to 70% of Portuguese cork derivatives exports, was very seriously threatened due to the emergence of a strong substitute product, the plastic stopper, ready to dethrone the cork stopper. Two main factors contributed to this situation.

ARA remembers, that on one hand, *"a huge increase in the cork demand, pushed for instance by Australia and the U.S., which in 1990 were bottling 110 and 500 million of bottles, respectively, and in 2000 these numbers soared to 900 million and 1.8 billion. Since cork, although not scarce, is a limited resource, this had naturally a heavy impact over the price of cork, which has tripled between 1994 and 2000"* (see **Exhibit 5**). The increase of wine production from the so-called countries of the new world, affected the price of cork stoppers and thereby boosted the demand for alternative products, in particular plastic stoppers, whose competitive price allowed them to gain market share mostly at the expense of the traditional cork stoppers.

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On the other hand, although described by Buser et al.^{ix} already in 1982 (see **Figure 8**) and articles were increasingly raising in the 1990s the issue of the presence of TCA in wine, stemming from the usage of cork stoppers. Although it is known that it does not pose health risks to consumers, some argue that its presence brings about a bad taste to wines. Irrespective of how far this is an effective perception for the majority of consumers, or it is mostly induced by articles or news, it was definitely impacting the cork stoppers business, notably because wine producers were aware that it could damage as much as 10% of wine bottles.

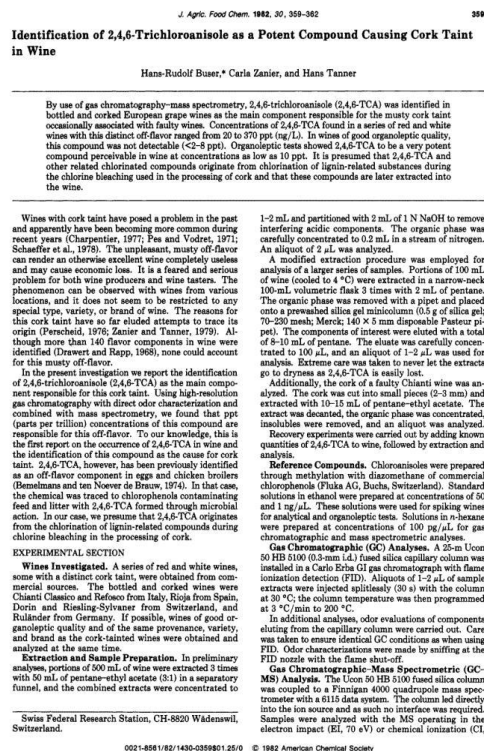


Figure 8 – First page of the article “Identification of 2,4,6-Trichloroanisole as a Potent Compound Causing Cork Taint in Wine”^{ix}

ARA remarks that “when a plastic product emerges without the issue of the stopper taste and 30% cheaper appears it becomes easily massified”. At the dawn of the millennium, Corticeira Amorim, with a long family history behind it, was standing before a major crossroad. The company had to choose between maintaining investment in cork stoppers or, perhaps, redirect the business to plastic stoppers leveraging on its know-how and well established sales and distribution channels.

Corticeira Amorim chose cork. ARA remembers that “it was decided that plastic was something to shoot down. Cork was much better, the majority of premium wine makers prefer cork and it could be further improved.” At that time, the World Wildlife Foundation (WWF) was able to raise a significant amount of money to invest in a campaign in favour of the cork oak and cork, despite the context of economic crisis. ARA uses to stress: “We did not choose the easier path. We stayed on the side of cork. We stayed on the good side. We rejected the shorter term profit, while we could quite easily have used all our strengths to start selling other products”.

However, the decision to stick to cork was not made lightly or without consultation. There was a long internal discussion and a worldwide recognized strategic consultancy company was contracted to work with Corticeira Amorim for around a year.

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Innovation (3rd millennium)

To preserve cork at the core of the company, several actions were taken in addition to those already taking place, while others would have to be fostered or even launched. It was the beginning of a new era at Corticeira Amorim, which ARA designates as “*the innovation phase*”, now pushed by the fourth generation of the Amorim family at the leadership.



Figure 9 – António Rios de Amorim^x

The company (i) accelerated its efforts by incentivizing and participating in the development of European standards, as well as in the raising of awareness of their importance for the whole value chain, with a view to the cork certification and consequent improvement of its performance, notably in stoppers, (ii) strengthened the launch of new products, including products to compete with plastic in the lower market segments of stoppers, and (iii) fostered its internal R&D, namely through its laboratory to tackle the issue of the taste in wine stemming from cork stoppers' TCA.

Rather than going for the easy solution of shifting to the plastic stoppers business, the Amorim family decided to hire Miguel Cabral, a respected researcher from the Department of Chemistry of the University of Oporto, to be the first Director of R&D at Amorim & Irmãos, the stoppers company of Corticeira Amorim Group, instigating a knowledge-intensive phase at the company. He headed a team of researchers, managing the laboratory and coordinating an international team of leading scientists. Miguel Cabral, strongly backed by ARA and the Amorim family, pushed the whole team to address the problem of TCA, which quickly found out, for instance, that TCA was volatile with steam.

Regarding European standards the development of the Código Internacional das Práticas Rolheiras (CIPR), a set of practical norms for the manufacturing of cork stoppers, has helped to achieve quality standards throughout the sector. It became an international reference in 1997. Additionally, the international certification Systecode, established in 1999, certifies cork stopper manufacturers that comply with the CIPR. This was one of the most important modernization factors of the cork stoppers industry, since it signals a guarantee of quality and reliability. Both Systecode and the CIPR push companies to adopt the most advanced production techniques, demand extensive knowledge of materials and foster strict compliance with environmental regulations.^{xi} In 2000, 87 Portuguese companies were certified, out of 170 worldwide, but nowadays, and owing much to Corticeira Amorim's efforts, this number increased to 242 out of 310 (see **Exhibit 6**).

Corticeira Amorim was a pioneer in obtaining the first FSC® chain of custody certificates in the cork industry in 2006 and, anticipating the needs of the wine industry, was the first company in the world to obtain this certification with regard to packaging. Corticeira Amorim contributes to strengthening the concept of responsible forest management. The company has been one of the main

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driving forces of FSC® forest management certification systems, despite not being a forest owner. Currently, Corticeira Amorim Raw Materials BU, which has a very close relationship with cork producers, only purchases cork from those complying with the CIPR.

Among the new products, the *Twin Top*® stopper represents a direct response to competition from plastic stoppers. It keeps the cork stopper's main advantages, at a cheaper price, given that both stopper's ends, in contact with air and wine, are disks of natural cork, while the body uses agglomerated cork. This allowed the use of a byproduct – the remnants of the cork planks, stemming from their cutting to extracting the traditional cork stoppers. ARA notes that *“the launch of this new stopper, its swift entry in the international market and the evolution it had, were all very remarkable”*. Its costs could be less than a third of the cost of a normal stopper and it is perfectly appropriate for fruity wines and recommended for wines with no need for a long bottle ageing. Around 90% of the wine worldwide production is consumed in less than one year of bottling^{xii}.

Another innovative stopper developed by Corticeira Amorim is the *Helix*®, combining the advantages of cork with the convenience of an easy opening and reutilization. The company has now a broad range of cork stoppers well beyond the traditional one (see **Exhibit 7**). Moreover, many other products have followed and emerge every year using cork, in areas such as sustainable construction, aerospace, aeronautics, sports, fashion, transport, inter alia, relying on cork byproducts (see **Exhibit 8**). These products not only increased the company's lines of business but also helped fuel the awareness around cork, as a multifaceted and sustainable product, and thereby, ultimately contributing also to the sales of the more traditional cork businesses of the company, such as stoppers and flooring.

With regards to R&D, Corticeira Amorim has invested heavily in the development of technological solutions to detect, measure and reduce TCA in its cork stoppers. ARA refers that *“in three/four years the company was able to start doing laboratory analysis to compare cork with plastic, in partnership with laboratories from Australia, France, Germany”*. Tests started to show that the plastic stopper, after all, was not what it appeared, or as its promoters alleged it to be. This allowed Corticeira Amorim to start, together with the cork promotion, a fight-back campaign, notably by disclosing the results of those studies, publishing articles and warning wine makers. Soon, plastic stoppers started to be questioned.

Overall, the sector, through APCOR (the Portuguese Cork Association), has embarked on some impacting marketing campaigns to raise cork visibility, credibility and recognition, appealing to the traditional, charming and mystic side of cork. The campaigns in 2006 in Australia, whose motto was *“if you say no to plastic bags, say yes to cork”*, and in UK, where the famous Portuguese football coach José Mourinho noted *“if it's not real cork take a walk”*, are two good examples. The latter had its highest point at the London International Wine and Spirits Fair.

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At the same time, Corticeira Amorim was developing technologies to tackle TCA. In the beginning it started reducing TCA in cork stoppers to less than 6 parts per trillion, the threshold below which, at that time, it was not considered detectable by an average consumer. Today, no wine maker is willing to accept more than 1 to 1.5 parts per trillion. Thanks to the process innovations involving the various methodologies and systems developed by Corticeira Amorim, which prevent and correct the releasable TCA levels of its cork stoppers, TCA levels can be considered undetectable.

The planks selected for cork stoppers follow a stringent process starting with a dynamic CONVEX® boiling system, which prevents cross-contamination and produce a drier cleaner cork, with a lower risk of TCA formation. Planks are stored stacked in concrete yards, to avoid contact with the ground, and placed in a way to increase water drainage and air circulation. The disks used in technical stoppers are handled with extra care, being treated with the INOS® exclusive hydrodynamic cleaning process. For treatment, Corticeira Amorim developed ROSA® (Rate of Optimal Steam Application), which is a controlled steam distillation whereby steam and water under pressure force out volatile trace compounds within the cork cells. The company uses it to eliminate traces of TCA in all cork granulates (to be used to manufacture agglomerates and the *Twin Top*® technical stoppers) and in batches of natural cork stoppers, which by indication of its chromatography system require additional treatment. Lastly, after processing cork stoppers are still subjected to several tests and procedures to ensure they meet the specifications required by wine producers. ARA notes that the company has meanwhile been developing “*together, with Cambridge University, a system based on individual chromatography to analyse TCA cork by cork, rather than per batch, which is a game changer*”.

In 2001, another product started emerging, revealing to be a true competitor of cork – screw caps – which ARA refers as representing around 85% of the Australian market. Nonetheless, customer surveys tend to highlight the pleasure of customers when they open a bottle with a cork stopper. Alternative stoppers have gained acceptance among consumers for day-to-day wines, but the opening ceremony seems to matter and thus they remain seen as less appropriate for special occasions (see **Exhibit 9**). In general, consumers prefer purchasing wines with natural cork, although this varies among countries. The stopper’s influence on the consumer perception of wine quality^{xiii} and on the purchase willingness has therefore also provided an additional motivation for the maintenance of Corticeira Amorim’s option for cork.

The best wine producers also tend to prefer cork stoppers at least for their best wines, while admitting to migrate to the lower range to plastic or screw-cap alternatives. The fact is that, for instance, amongst the top 100 premium wine brands, those finished with cork enjoy a much more robust sales growth than brands finished with alternative stoppers (see **Exhibit 10**).

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Having worked towards resolving the problem of TCA, Corticeira Amorim proceeded to explore the different possibilities that cork stoppers offer, to create new products. These properties include lightness, flexibility, elasticity, compressibility, impermeability and non-perishability. They are recyclable, reusable, renewable and, thus, environmentally friendly given the low CO₂ emissions of their life cycle (see **Exhibit 11**). Hence, cork stoppers combine high performance while addressing sustainability concerns. ARA stresses that, whereas aluminium capsules act as a hermetic seal not allowing oxygen to pass into the bottle (and the wine end up with a bad smell 14 or 15 months after bottling), and synthetic stoppers allow for too much oxygen gradually permeating into the bottle, oxidizing excessively the wine, cork stoppers ensure the air exchanges for wine evolution remain inside the bottle. Cork stoppers provide dynamic adaptation overtime, ensuring an appropriate Oxygen Transmission Rate (OTR), given that they accompany the glass expansion and contraction due to temperature variations. They allow a small amount of oxygen to enter into the bottle during the first month after bottling. This amount then decreases gradually until about one year and becomes negligible thereafter.

The capacity of a stopper to contribute to the oxidation and/or reduction of wine in a bottle is related with its Oxygen Transmission Rate (OTR) and the majority of wine producers recognise some transmission to be favourable. A recent study compared the performance of different stoppers over two years and showed that, from a sensorial perspective, the evolution of the wine is more balanced with cork stoppers.^{xiv}

However, in a context of competition, price is always a key success factor. The market was splitting among other players, but the Amorim family never gave up. ARA stresses that *“the relevant half of the world’s market is around 18 billion bottles - 2 billion plastic stoppers, 4.5 billion screw top aluminium capsules and 11.5 billion cork stoppers, of which Corticeira Amorim has around 4.2 billion”*, adding that *“however the relevant market for the company is the 18 billion bottles and not only the 11.5 which today use cork stoppers”*.

Corticeira Amorim has teams fully dedicated to R&D, with partnerships with other international research centres, permanently developing tests to improve cork stopper performance. The outcomes of R&D, conducted by the company’s staff in its laboratories, drive the changes in the factories’ technology and in the procedures. The *Twin Top®* stopper was decisive and deserves special mention among the outcomes of the investment in R&D. It allowed addressing lower range customers, since it is a cheaper stopper, but with a good performance. At a later stage *Helix®*, also a product of internal R&D, was quite innovative. It is a product with a premium image, for those looking for the convenience of an easy opening.

Nonetheless, not only stoppers have been, or are, under pressure. ARA notes that *“In the panelling business, to increase the revenues of some sales units (selling only cork products) up to a*

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level above a critical threshold, the company decided to integrate some wood panelling in their commercial offer.” He adds that “however, in some cases they end up prevailing over cork”, which “led to an identity crisis, and so the company had to do some restructuring”. At the end of the day the cork has always remained the company’s face and form.

Internal changes fueled the focus on R&D and innovation

According to ARA, to support its innovation phase, the company couldn’t have relied on a strict position of just maintaining cork without significant internal changes. In fact, several actions had to take place. Those actions however, took their time. During five years the company was focused on improving its internal processes, organization and, notably, cork performance. It had to prove the quality and advantages of cork, vis-à-vis its main competitors, before launching its turf offense. Once having the appropriate technology, quality control duly implemented, cork stoppers’ performance improved, as well as some new products available, the group was then ready to start communicating the advantages of its products and challenging its competitors’ products.

The company has now implemented a new corporate governance model. After 2001, when the previous president, Américo Ferreira de Amorim (the uncle of the current CEO), retired, the company, on the advice of an international consulting firm, decided to create a Board of Directors composed of family shareholders with a small Executive Committee headed by ARA. He stresses that a leader with the strategic view, expertise and know-how of the market, as was the case of his uncle, “*was not replaceable without changing the corporate governance model*”. The company was therefore envisioned to become more professionalized. The model encompassed also a clear separation between the roles of supervision and that of the management, as well as a double supervisory mechanism, consisting of a supervisory board and a statutory auditor. This is the model, in essence, which is still in place today (see **Exhibit 12**).

At the same time five Business Units (Bus) – Raw materials, Cork stoppers, Floor & wall coverings, Composite cork and Insulation Cork – were also created (see **Exhibit 13**). The novelty was for the Raw Materials BU to control, transversally, the cork supply chain of every BU, “*this way freeing the remaining four BUs to focus on their core activity, since the cork supply used to consume many Board’s discussions*” recalls ARA. Each BU has its own executive committee and CEO. The BUs manage their businesses independently and are coordinated by the Corticeira Amorim Executive Committee, which approves strategic initiatives and goals for the entire organization and also for each BU. In the event of exit, termination or replacement of the CEO of a BU, Corticeira Amorim’s CEO occupies his/her seat until the vacancy is filled.

However, not only the leadership but also the strategic vision of Américo Ferreira de Amorim, who had retired, has been difficult to replace. Hence, within the same process of change, in 2003, with

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the aim of deepening and improving the process of strategic and operational planning, the company launched – and implemented – a new model of planning and control, based on the Balanced Scorecard. At that time it covered already all the Business Units and addressed only high level staff of the Group. The objective was to build a management tool that could better clarify, systematize, communicate, align and operationalize the strategy, by converting it into objectives and actions, articulated and amenable to monitoring. The strategic planning is done for a three years' horizon, with financial and commercial goals for each BU, together with identification of the skills and infrastructures/resources needed to achieve them.

Within the context of implementation of the balanced scorecard, a performance management system was also launched, since the previous model needed to be updated to be better aligned with the newly defined objectives. ARA recalls that *“a variable component mechanism was introduced in the salaries of several employees, while the fixed component remained unchanged during several years”*. The executive members of the Board of Directors earned a variable remuneration, corresponding to a performance bonus resulting from the appraisal of the results and compliance with the strategic objectives of innovation, financial soundness, value creation, competitiveness and growth.

Corticeira Amorim's strong belief in cork stems a lot from the company's family profile

What's more remarkable in Corticeira Amorim's history is that, despite the market pressure (also echoed by the company's commercial team), given several competitive alternatives such as plastic and aluminium, in the stoppers business, or wood, in the coverings business, the company has remained faithful to cork and maintained the belief in its competitive advantages. Corticeira Amorim sticks to the values and mission – built and embodied by Amorim family over more than a century – whose essence is to add value to cork, no matter the format. ARA considers this to be the recipe for success, since *“all its former competitors that have relinquished cork, except one, have disappeared”*.

ARA notes that when a company tries *“to do things only because it is in fashion it doesn't work and that's where the family roots, the deep knowledge and the strong belief in the product play a crucial role”*. He underlines that *“the Amorim family identifies itself with cork and the cork is also identified with the family. (...) Américo (Ferreira de) Amorim is known as the king of cork, his DNA is the cork business.”*

There is a sense of belonging that extends to the whole staff, which has a deep notion of compromise and commitment with the company, and also a passion for cork. ARA says that *“company's visitors use to say that Corticeira Amorim's staff is not 100% committed but, instead, 120%.”*

Corticeira Amorim is today focused on different cork products and variegated applications. It assumes its ultimate goal of adding value to cork and it is fully aware of the impact of its choices, both

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on the family that owns the group, on staff and, not least, on several smaller companies, which have developed around the cork cluster, and are highly dependent on the leader's strategy and success. It has always pursued the goal of contributing to the development of the sector. As ARA pointedly remarks, *"as market leader, any hesitation in a critical moment could easily detonate the whole industry"*.

Furthermore, even if some argue that family businesses struggle to be successful, some studies also show (see **Exhibit 14**) that the average long-term financial performance is higher for family than for non-family businesses. Américo Ferreira de Amorim notes in the book *Amorim – A Family history*ⁱ that a *"family has an unestimated value (...) family business groups have all the conditions to be as (if not more) dynamic as any other group."*

What remains clear is that the company's family profile has played an important role in its evolution and strategic options and is difficult to "uncork" cork from the family origins and control over the company.

From cork stoppers to knowledge

Compelled by the need to address the crisis in general in the cork industry, on one hand, and the TCA in particular, on the other hand, Corticeira Amorim saw in cork and in its efforts to tackle the cork taint in wine the potential solution to overcome the crisis. While researching TCA and developing solutions for the eradication of the unpleasant flavours it originates, as well as innovative usages for cork, Corticeira Amorim has evolved in such a way that, today, it is no longer a cork stoppers manufacturer but has become, in a sense, a knowledge company centered around cork, revealed by its investment in R&D and Innovation, submission of patents, pace of launch of new cork products or internal initiatives to stimulate creativity.

ARA recalls once visiting a cork oak farmer in Alentejo, in the South of Portugal, with an Australian winemaker, one of the company's cork buyers, while pointing out a certain piece of land, stated *"this soil is the best for cork oak production"*. A few minutes later another buyer commented about the same land *"this soil does not pay for cork"*. At that precise moment, he realized that, irrespectively of other strategic options to be considered, cork had to be duly analysed, its quality ensured and, as far as possible, standardised if the company was willing to keep investing in cork. A certification process had definitely to be implemented and diffused. Corticeira Amorim's knowledge about cork had clearly to be developed (exploited) and augmented (explored). Developed, because some of it was already within the company, but it was embedded and had to be incorporated into new technologies, products, procedures. Augmented because there were several potential new areas to be discovered, experimented.

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Corticeira Amorim is also actively committed to the economic, social and environmental development, positioning itself to be a role model in terms of responsible competitiveness, integrating a compromise with sustainability as a strategic pillar of its action along the whole value chain. It assumes a sense of added responsibility for triple goals of “product”, “people” and “nature”.

However, it is probably in the field of research that Corticeira Amorim is more clearly unique in generating benefits for the whole cork industry. R&D and innovation have become a strategic pillar of Corticeira Amorim’s leadership in its various businesses. The group is now fully focused on improving quality and strengthening knowledge, prioritizing the optimization of processes and technologies, as well as on the development of design, new products and businesses, increasing a portfolio of higher added value products and solutions that anticipate the trends of a market, which is increasingly eager for natural quality products. Gone are the days of mere cork stoppers manufacture.

The company’s laboratory, initially specialized in the development of new products and processes, gave rise to a yearly investment of around 7.5 M€ in R&D and Innovation (well above a standard 1% of revenues, which is remarkable given its core business in an agro industry). It has submitted 46 patents for registration over the last years and it is regularly introducing new products and applications for cork, increasing its value, diversifying the revenue sources. This trend is also felt in the industry as a whole, with an increasing number of cork projects for other areas of application well beyond wine bottle stoppers (see **Exhibit 15**).

With the aim of creating new applications for cork, new products and new markets, Corticeira Amorim created the *Market Oriented Research for Cork (MOR FOR CORK)*, a team with the specific mission of conceiving and developing new cork products and rendering technical support to the development of new business areas, going beyond the R&D taking place at each BU. Recently it has devoted particular attention to the cosmetic and food sectors.

Nevertheless, this new knowledge-based pattern of Corticeira Amorim is visible not just in its R&D efforts. The organisational culture geared towards innovation and the creation of value is undertaken by all the company's employees, as proven by the success of an internal innovation programme, CORK IN. Launched in 2012 – with the aim of sharing ideas on production processes, methods and the creation of new products and processes – in the first six months over 110 ideas were filed, 35 of which have already been implemented or are currently in the process of being implemented.

The knowledge focus starts at the top with the CEO playing the role of challenging each BU, incentivizing R&D, new products or operational efficiency. This implies think of the business from outside, with a helicopter view, fostering knowledge in several internal areas.

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The impact of Corticeira Amorim's investment in R&D extends to the whole cork cluster, going therefore much beyond its core activity. The group is dedicated to the discovery, assessment and implementation of best practices related to the cork oak forest, maintaining a close relationship with cork producers. It evaluates not only cork oak cultivation and the various cork harvests, but also the pests and diseases linked to the tree, working together with external research teams, notably from renowned universities related with agriculture and forestry. Corticeira Amorim has, for example, a joint project with the University of Aveiro to simulate cork oaks growth in a context contaminated with TCA to assess its absorption by cork.

Corticeira Amorim also supports, through its business incubator founded in 2014 – Amorim Cork Ventures –, entrepreneurs willing to launch their own projects to explore new ideas and uses for cork, mainly targeting foreign markets. It does so via financial support, as well as through the provision of access to management skills, know-how and contact networks spanning different sectors and countries. Although more focused on startups, Amorim Cork Ventures also supports small and already established companies, as long as they are developing innovative cork products or concepts with growth potential.

The company contributes to making viable the cork oak forest – a natural and renewable resource, with environmental, economic and social benefits. Corticeira Amorim invests in R&D and innovation, and in factories closer to the source of the raw material, improving its quality systems and modernising the manufacturing processes. The company's activity has a relevant impact on the cork value chain, whose borders have been extending beyond the traditional cork usages.

Cork's capacities are now being exploited by designers, architects and engineers from a wide array of sectors, to be applied for products ranging from surf, skate boards or kayaks, to power generation, railways, dams, airports, infill in artificial grass pitches and cosmetics, among many others. ARA underlines his belief *“in a future much better than the past, because there are many more applications for cork than those that have been discovered so far”*. He stresses that *“it is not the belief in cork but, more than that, the belief in its potential to evolve”*.

Cork is undoubtedly an attractive product, with intrinsic economic, social and environmental virtues, and with some potential. However, many substitutes, commercially quite appealing, seem to increasingly challenge it. Maybe cork will successfully last for many years as a material broadly used. Or maybe its use will decay, and become only a (sort of) niche market product. The extent to which the family profile of Corticeira Amorim will play the major role in the next strategic choices is probably the biggest dilemma.

If it were not for Corticeira Amorim's family dimension, would the devotion to cork be as strong as it is? Will the cork sector (perhaps a whole ecosystem) remain, without the Amorim family?

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TEACHING NOTE

Synopsis

Cork oak forests are an important environmental, social and economic asset in Mediterranean countries. The cork forms the bark of the cork oak tree. Cork is a rather peculiar natural product, possessing multiple characteristics, which yields itself to several different usages, including, but going much beyond, wine bottle stoppers.

Corticeira Amorim is the worldwide leader in the cork manufacturing (with a share of around 40% of the cork stoppers sold each year). Born as a small home-based cork stopper manufacturer in the 19th century, it is now the biggest international company of Portuguese origins, selling in every continent. Its product range includes a broad array of cork products, ranging from cork stoppers (still its main product) to cork composites used by NASA in spaceships, as well as floor and wall coverings or insulation agglomerates.

Corticeira Amorim's history provides a basis for a stimulating debate within the context of two broad areas: Family-Owned Businesses (FOBs) and Strategic Management. FOB because, given the company's family ownership since ever, it has a set of features that are typical in this type of firms and deserves a reflection. Strategic Management because, throughout its history, the company had to make strategic decisions, notably on what and how to compete, which is interesting to scrutinize also linking to its FOB profile. The case provides information and insights which drive students (notably post-graduates and executives) to the discussion of themes and concepts within these areas, such as family businesses, long term management/leadership, patient capital, verticalisation, internationalization, incremental/radical innovation, knowledge/innovation management and explicit/implicit knowledge.

The company's history has gone through four main phases (see **Figure 10**). It was first a cork stoppers factory, during which phase Portugal was mainly a cork exporter. The bigger added value was done elsewhere. After almost one hundred years, the company then started gradually to widen its industrial base and embark upon a verticalisation strategy of its operation, so as to better penetrate other markets, clients, and countries. In the late 1980s, as a fallout of the market opening up following Perestroika in the former Soviet bloc where the company had a strong presence, the company decided to strengthen its international operation, and further diversifying its products. This move was hastened by the fact that some clients started favouring the direct purchase from other Portuguese cork stoppers providers since Corticeira Amorim had decided to start selling stoppers manufactured by third parties. Lastly, following a huge cork price increase and the emergence of the TCA problem, Corticeira Amorim had to definitely foster its investment on R&D and innovation, taking its portfolio of cork products much farther than the more traditional usages, by permanently improving its knowledge about cork. Its mission is now, very clearly, to add value to cork.

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Phase	Main features
1. Cork stoppers factory (until the 1960s)	Portugal was mainly a cork exporter. The bigger added value was done elsewhere.
2. Development of the industrial basis (1960s – 1980s)	Gradual expansion of the industrial basis and verticalisation strategy of the operation, to better penetrate other markets, clients, and countries.
3. Internationalization (late 1980s and 1990s)	International orientation of the business with most sales channelled through the company's network abroad.
4. Innovation (3rd millennium)	Strong investment on R&D and innovation, taking the portfolio of cork products well beyond the more traditional usages, permanently improving the knowledge about cork.

Table 1 – Four main phases of the company

The first part of the case, which is mainly descriptive and factual, has four sections. The first section briefly describes cork, cork oak forests and the cork industry, in general. By stressing, in a more general perspective, the triple impact of the cork industry, it raises readers' awareness regarding the importance of cork for the whole sector, as well as for the maintenance of cork oak forests, and for biodiversity. The second section provides a short overview of the company today, with some main figures and highlights deemed relevant, before entering into the details of the company's history. The third section is the larger section of the case and its core, going through the company's 145 years of history since its inception, underlining the challenges it faced, both external and internal, and how the firm has addressed them. This section should help students better understand the company's evolution. It exhibits several important internal changes (such as in terms of shareholders structure and leadership succession), as well as the most relevant strategic choices of the company, always cork-driven given the long and lasting relationship the Amorim family has with cork. This relationship borders on a form of devotion. The fourth section explores further some changes, at the level of governance, company structure, as well as planning and control model, which underpin the last phase of the firm's history.

The second part, more analytical, incorporates two sections. The first section addresses the company's belief in cork and the family's role. It revolves around the rationale behind the choice to stick to cork, or, at least, perhaps, the main reason. In a way, this section focuses on the "*cause*" of the company's main choice vis-à-vis cork. The second section briefly analyses the "*consequence*" of the company's main choice. While describing in further detail the last big change in the company, it stresses the strategic importance of knowledge and innovation in the current phase of the company, in order to pursue its mission. The company maintained its course in the "cork direction", but had to implement several changes in its practices and "modus operandi".

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These two last sections are much less descriptive, although still providing some data, notably about the company's efforts on R&D and innovation. They aim to provide some guidance to stimulate the analysis of the case and fuel its further discussion by the students. None of these sections develops the subjects too much, since their purpose is to give only some clues and few data, to avoid pre-empting the discussion by the students. While the first points out more towards a discussion on FOBs and its long term leadership, the second is more useful for a discussion on strategic management issues, in particular on the role of knowledge in a company's strategy.

Objectives

Students should analyse critically the evolution of Corticeira Amorim, while identifying the main factors that fuelled the company's approach to addressing the problems it faced, in particular towards the end of the 20th century. Students should be able to identify what happened, when, how, and in particular, why.

The first major case objective is, by using the case of Corticeira Amorim, to go through a set of typical features of FOBs, analysing and discussing them, and in particular, to recognise the family profile of the company and of its leadership as the driver for some of its more important business options. In particular it is highlighted the strategic decision to stick to cork, despite, mainly the strong external, but also some internal pressures. Students could then go from the particular case of Corticeira Amorim to the general understanding of the role of the family profile of companies in their behaviour, which tend to favour longer term options. Students could still discuss whether some features of FOBs are transferable and would be beneficial also to non-family businesses.

The second major objective of the case is to analyse the company's main phases, and its strategic decisions on what and how to compete, also linking where appropriate to its FOB profile. The last phase, being the most recent, should be particularly scrutinized. The company, had perforce to tackle two main problems – on the supply (the cork price increase) side, and on the demand (growing consumers' aversion to TCA) –, which changed it definitively from a commodity cork stoppers manufacturer into a model where knowledge and innovation play a growing strategic role, leading to a competitive advantage. In this context, students could then recognise that knowledge and innovation management are not only relevant for start-ups and/or high-tech companies, but that it is available and it is increasingly important in the strategy of any company, including what was once considered to be an agro industry.

Teaching objectives focus therefore on two big domains – FOBs and Strategic Management – which can be addressed independently, depending on the course's main subject. The respective teaching notes (part 1 and 2) will thus be presented, and could be used, independently of each other.

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The target learning group are post-graduates and executives, in particular. However, the discussion amongst undergraduates should not be excluded.

1. Family-Owned Businesses

1.1. Learning objectives

Understanding the FOBs – This case will allow students in particular, to debate the impact of family control on businesses, with its strengths, weaknesses, opportunities and threats. Corticeira Amorim is an example, given its huge size despite its family profile. It shows how a family business, where the unity and trust are crucial, can become the worldwide leader in its market, removing the misconception that FOBs can hardly grow much farther beyond the size of an SME and that when they do they barely retain that position for a long period.

Recognising the linkage between FOBs and long-term management/leadership – The case should further allow, as another main objective, the analysis and discussion of the impact of FOBs on a firm's management and leadership. By remaining faithful to cork as the core of its business throughout its 145 years of history, Corticeira Amorim shows a resilience and long term focus typical of many FOB and long-term vision. This case gives students the opportunity to discuss the potential connection between FOBs and long-term management/leadership, namely whether the former tend to lead to the latter.

Analysing the evolution in a company and its drivers – As a complementary objective the case also enables the analysis of the company's evolution, with a focus on the internal drivers, which are more relevant in a FOB context. Throughout its history, Corticeira Amorim has been evolving and adapting, sometimes more reactively and other times more proactively. In the first case, to tackle threats stemming from external factors, and also due to internal reasons (such as a new generation at the leadership and the CEO succession). Whereas in the second case, to address opportunities to increase revenues, such as diversifying its portfolio of products, or internationalise.

1.2. Sources for case discussion

Like many conceptualizations, the FOB definition is not consensual and several academic articles and institutions have addressed the topic, such as Astrachan et al.¹ and the European Commission, the latter notably in a study² conducted on its behalf and in the report of an expert group³ specifically created to analyse the issue.

FOBs performance and typical features

¹ Astrachan et al. (2002).

² Austrian Institute for SME Research (2008).

³ European Commission (2009).

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This case illustrates that irrespective of the definition of a FOB, with its typical strategy focusing on the long term, which non-family businesses often lack, can steadily grow much beyond a small/mid-size and have a worldwide reach, successfully overcoming usual family problems, such as squabbles over succession, as referred to by Kachaner et al.⁴, who – echoing a BCG analysis, according to which family businesses account for more than 30% of all companies with sales in excess of \$1 billion – stress the powerful role played by family businesses all over the world.

Furthermore, for instance, Anderson et al.⁵ showed that in a sample of 403 S&P 500 firms, the Return On Assets (ROA) and Tobin's q (as the market value of total assets divided by the replacement costs) from 1992 to 1999 were significantly higher for family firms vis-à-vis nonfamily firms, which indicates that the former are significantly better performers and have greater valuations.

More recently, McKinsey & Co. also showed⁶ that from 1997 to 2009 a set of publicly listed family-influenced companies in US and Western Europe have higher total returns (CAGR weighted average) to shareholders than do indexes such as MCSI Europe, MSCI World, and S&P 500.

In any case, although overall the empirical evidence seems to confirm that family control affects corporate performance, no consensus exists as to whether family control and performance are positively or negatively related.⁷ Some authors argue that disagreements can only be resolved by distinguishing among different types of family firms.⁸

Corticeira Amorim reveals typical features of FOBs, many of them mentioned by Kachaner et al.⁴, which stress that family businesses focus more on resilience than on performance, that they forgo the excess returns available during good times to increase their odds of survival during bad times. Kachaner et al.⁴ also add that, *inter alia*, these businesses have leaner cost structures, are especially judicious with CAPEX, show a surprising level of diversification, are more internationalised and retain their talents better. As to the management structure, however, being a FOB does not mean that the family is “above everything”. In fact, at Corticeira Amorim, it is the firm that is paramount, and everybody else including the family are the supporting cast. The group was able to choose not all family members, but only those more committed, to stay in the company.

The case shows the strong commitment of the family to the business and also with all stakeholders. This extends to the sector in general, with respect for the forefathers, but also with a perspective of the next generations. This links to the concept, mentioned by Jaffe⁹, of a shared connection to the heritage and sharing of common values, respect and trust.

⁴ Kachaner et al. (2012).

⁵ Anderson et al. (2003).

⁶ Caspar et al. (2010).

⁷ Pindado et al. (2015).

⁸ Miller et al. (2013).

⁹ Jaffe (2013).

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Managing for the long run

Corticeira Amorim's owners demonstrate a deep and personal attachment to the company's business and mission, managing for the long run, usual in these type of businesses as noted by Miller et al.¹⁰, who add that family-controlled businesses (another designation for FOB) represent treasured institutions to sustain, with a sense of balance, the family, employees, and other key stakeholders in the future, all being something to nurture, and not to be sold for quick capital gains. Corticeira Amorim persists in investing in cork, despite opportunities that became available to buy into rival technologies.

The commitment to cork goes beyond the Amorim family, involving also the company's staff enthusiasm and willingness. Miller et al.¹¹ underlines the importance of a moral commitment to a relationship of reciprocity between employer and employees.

The sense of commitment and long-term focus extends to the greater community as well. Corticeira Amorim's intervention transforms the market and indeed the entire sector, for instance when it incentivized the cork certification, something unthinkable not many years ago. This links to the concept of multi-industry value chains, which is one of the five levels of environmental action that family businesses can take on sustainability, which had been mentioned by Jim Leape, cited by Kennedy¹².

Corticeira Amorim has always pursued the goal to contribute to the development of the cork sector, right from upstream involving the farmers in Alentejo. This explains why, when in the 1990s, the core product of the whole industry - cork stoppers - was seriously threatened by rival products, it faced the crisis with a strategy that would result in benefits for the whole area of activity. As a result of that effort, it has continued to strengthen its position as world leader, in the clear validation of its strategy by the market.¹³

According to Miller et al., winners Family-Controlled Businesses demonstrate four driving priorities as shown in the following figure:

¹⁰ Miller et al. (2005).

¹¹ Miller et al. (2005). pp. 25.

¹² Kennedy (2013).

¹³ Corticeira Amorim Chairman's message - <http://www.amorim.com/en/who-are-we/chairmans-message/>, accessed on January 6, 2016.

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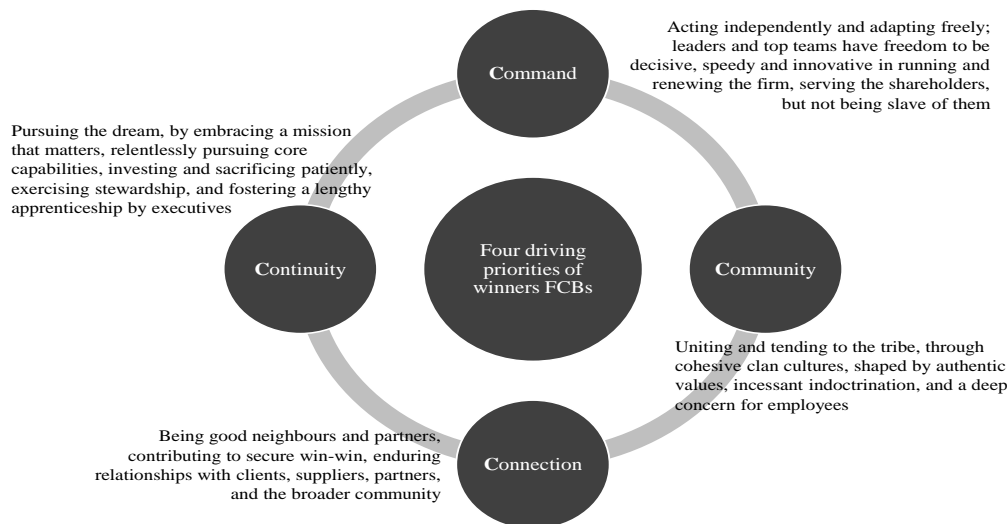


Figure 10 - Four driving priorities, which winners family-controlled businesses demonstrate to varying degrees¹⁴

However, these may be prioritized differently (some as major priorities and the remaining as complementary), depending on the company's strategy. Miller et al. typify the strategies around five categories: Brand Builders, Craftsmen, Operators, Innovators and Deal Makers.¹⁵

Some strategies prevail more than others in each company. Arguably Craftsmen, Deal Makers and Innovators are those which better apply to Corticeira Amorim. Craftsmen since its origins – product excellence appears to have been a major concern throughout the company's history. Deal Makers since the late 1980s, as it is visible through an increase in acquisitions, partnerships and joint ventures. Innovators more recently, taking into account the increasing investment in R&D and both product and process innovations, expansion of portfolio of products and markets and, in particular, the full mindfulness of the potential role of knowledge.

The point in these different strategies and their major and complementary priorities is that companies should avoid what Miller et al. calls the *Icarus Paradox*, i.e. the practices and capabilities that create success can often pull organizations towards dangerous extremes, driving out vital complementary practices and ultimately bringing failure.¹⁶

Patient Capital

Corticeira Amorim, as a family business, has more freedom to make decisions with a long-term view, such as keep investing in cork, despite potentially more attractive options emerging. This is the essence of patient capital, a concept mentioned by Ward et al.¹⁷

¹⁴ Built from Miller et al. (2005). pp. 6 and 31-48.

¹⁵ Miller et al. (2005).

¹⁶ Miller et al. (2005). pp. 203.

¹⁷ Ward et al. (1991).

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Despite many companies being born as FOBs they end up going public with dispersed capital and a majority of owners with no particular family connection. This might happen as a consequence of growth, M&A process, or just because the family owners wish to reduce their participation for some other reason. The new owners quite often do not share the initial company's values and long-term commitment. Their ethic and sense of responsibility over the business is different. They favour shorter-term goals and profits, since many times they don't expect to remain shareholders for a long time. There are cases, however, of investors with a longer-term view, with Warren Buffet perhaps one of the most paradigmatic examples, but these are not the rule nowadays.

The fact is that patience allows benefitting from long term opportunities while quick decisions focused on the short term may actually hamper positive results. Perhaps a long term approach does not always guarantee to be better than a short term strategy, but sometimes to be patient should be an option and it often doesn't happen due to the need of short term results, which tend to relegate a longer term strategy to a second plan. This was not the case of Corticeira Amorim, which keeps investing in a material, such as cork, that has a relatively long renewal cycle.

Family roots and long term leadership competitive advantages

The synergies between a business and a family, as comes out of Corticeira Amorim, bring precious advantages to family businesses, as mentioned by Poza et al.¹⁸. In Corticeira Amorim, there is loyalty, a logic of continuity, respect for the past and a strong sense of responsibility *vis-à-vis* the company, its staff and, indeed, the whole cork sector. On the other hand, not only its CEO, António Rios de Amorim (ARA), but also other Board Directors know the company very well given their long permanence in Corticeira Amorim. They share the same aim and are eager to preserve the legacy. However, these family businesses advantages, referred for instance by Cunha¹⁹, are precious only, as he also adds, if their potential is not jeopardized by family problems, such as family conflicts, feelings of entitlement over the company, descendants' aversion to the company given the time it withholds, lack of efficient and standardized procedures, among others. Rather than choosing between the family and business, if FOBs can manage and synthesize these contradictions they will have a long-term strategic and competitive advantage²⁰.

When companies grow, a family's CEO, usually occupies that role for many years, has an accumulated know-how and networking capabilities in the sector that can be crucial, both from a strategy and operational perspective. Regarding strategy, he/she will more quickly identify business opportunities, not obvious to "new kids on the block", as well as have an insight into the sector and of its professionals, so to support more knowledgeable and better decisions, and, very often, to access the

¹⁸ Poza et al. (2014).

¹⁹ Cunha (2014).

²⁰ Schuman et al. (2010).

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right personnel to seal a deal. Concerning operations, a close follow-up of raw materials supply, product development and operational efficiency, can be also of much added value, when an intervention is required in face of more specific problems.

ARA has shown these qualities when he intervenes not only taking strategic decisions at high-level (such as was the case when the company had recently decided to maintain cork as the core of its business), but also in a more operational level instigating middle management in more granular decisions and even intervening directly when necessary. This links to the manager zooming in and zooming out capacity which had been mentioned by Kanter²¹.

CEOs with a long stay in heading the same company, as is often the case in FOBs, have the necessary know-how to go deeper in a problem, moreover assuming the risks of the decisions. The, usually, swifter change of CEO constrains the possibility of these benefits in non-family businesses.

²¹ Kanter (2011).

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1.3. Roadmap for case analysis/discussion

The following case analysis/discussion plan is conceived for a 90 minutes time slot and addresses mainly the case's FOBs, but also leadership, elements. Schematically the plan is the following:

Phase	Topics / Questions suggested	Duration
Introduction	<ul style="list-style-type: none">• <i>Wine consumption, awareness to the variety of stoppers and TCA problem.</i>	15 min
Phases in the cork industry and Corticeira Amorim history	<ul style="list-style-type: none">• <i>What better characterises each phase of the cork industry and, particularly of what Corticeira Amorim went through during its life, notably from an organizational perspective?</i>• <i>What were the main drivers for the company's evolution? Were there only external drivers or some were also internal, namely organizational?</i>	20 min
FOBs behaviour and their openness to change	<ul style="list-style-type: none">• <i>Facing the same external factors, would any company react the same way, notably regarding the maintenance of cork as the core of the business?</i>• <i>Which drivers prevail on companies' decisions? External or internal?</i>• <i>How do FOBs manage in view of resilience?</i>• <i>Which intrinsic characteristics of this company led it to act as it did?</i>• <i>How far should a company stick to its roots when the market is demanding something different?</i>• <i>Where is the frontier between an acceptable conviction in an old business and an excessive obstinacy which might lead a company to downfall?</i>	25 min
Transposition to other companies and contexts	<ul style="list-style-type: none">• <i>To what extent is the family control of a business a competitive advantage?</i>• <i>How far are the positive characteristics of FOBs transposable to non-family businesses? Under which conditions would they better succeed in other contexts?</i>• <i>To what extent could we disentangle the success of Corticeira Amorim's strategic choices from its leadership position and its sector? Would they have been equally successful in other sectors?</i>	15 min
Applicability to students' reality	<ul style="list-style-type: none">• <i>Do they work in FOBs?</i>• <i>For those who do, do they feel it as a strength or as a weakness?</i>• <i>For those who do not, do they consider that the transposition of some FOBs' features to their realities would be possible and valuable?</i>	10 min
Conclusions	<ul style="list-style-type: none">• <i>Family control impact on long-term aim.</i>• <i>FOBs' benefits.</i>	5 min

Table 2 - Case analysis/discussion plan to address FOBs elements

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In what follows, the plan is presented in more detail:

Introduction

The debate amongst students could be kicked-off by asking them if they like wine, and, if so, if they have ever noticed the variety of stoppers available, not only between different types of wines (red, white, champagne, liquors, etc.), but even within the same type of wines, depending upon its category, country of origin or only the wine producer choice.

Still before entering into the case, the instructor may ask students if they know the several materials used nowadays to produce bottle stoppers (namely cork, plastic and aluminium), and if they care about it when they purchase wine. Students might still be asked about the advantages/disadvantages of the different materials, both from the wine and economic perspective, and also from the environmental and social one. Finally, students could be asked if they have ever heard about and know what is TCA, as well as if they are aware of how it can affect wine and, ultimately, a whole region.

What were the main phases that the cork industry and Corticeira Amorim, in particular, went through during its life?

Students should now be guided through the most descriptive part of the case and answer the following questions:

- *What better characterises each phase that the cork industry and, namely, Corticeira Amorim went through during its life, notably from an organizational perspective?*
- *What were the main drivers for the company's evolution? Were there only external drivers or some were also internal, namely organizational?*

1st phase – Cork export (until the 1960s) – In its first (mostly) 100 years, Corticeira Amorim was a cork stopper manufacturer and a cork exporter. The product was sold with no big added value. At that time Catalunya was the biggest cork transformation centre worldwide.

2nd phase – Development of the industrial basis (1960s – 1980s) – With a new generation at the company, a trip to some Eastern Europe countries fostered the verticalisation of the business. A new mantra was assumed advocating more markets, clients, countries and products. To achieve this, Corticeira Amorim needed a much stronger and broader industrial basis. In the 1980s, cork was exported mostly having been already manufactured, allowing the retention of more profits in Portugal.

3rd phase – Internationalisation (late 1980s and 1990s) – Perestroika's negative impact on Corticeira Amorim's positioning in Eastern Europe markets and its decision to replace a significant part of the internal production capacity by the external purchase of cork stoppers jeopardized the business, since clients started to question why buy from the company. The group decided therefore to

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definitely internationalize the business, thus simultaneously further diversifying in terms of new products derived from cork.

4th phase – Innovation (since the late 1990s) – An adverse external conjuncture (huge increase in cork price and the TCA problem) together with the succession of the CEO, fostered an evolution at Corticeira Amorim in the beginning of the 21st century. It needed to strengthen its R&D and innovation efforts, which ultimately converted it from a cork stoppers business into a knowledge company, whose mission is to add value to cork. This period lasts until nowadays.

Would another company have reacted the same way, notably the decision in the late 1990s on maintaining the business based on cork? When should a company be open to change?

After identifying the several phases of evolution of Corticeira Amorim, students should now start discussing and deepening their analysis of the reasons behind the company's big strategic choices, beyond those more obvious external factors, and from there extend the debate to FOBs' impact on their management, in general. The second part of the case provides already some tips to guide the reflection. A first set of questions could revolve around the following:

- *Facing the same external factors, would any company react the same way, notably regarding the maintenance of cork as the core of the business?*
- *Which drivers prevail on companies' decisions? External or internal?*
- *How do FOBs manage in view of resilience?*

A majority of companies would probably have redirected the business, namely to adopt other types of stoppers, given the external circumstances. However, one must not forget the internal factors, notably the profile of FOB that characterizes Corticeira Amorim. This was surely a strong reason to decide to maintain the business anchored on cork, rather than replacing it by other materials, apparently very successfully used to produce stoppers, which could be more attractive at first sight and in the short term.

The resilience, however, does not mean a crystallized structure of management. In Corticeira Amorim, namely after Américo Ferreira de Amorim's retirement, the corporate governance structure has evolved to a more professionalized model, where family owners coexist with several Board Directors non-family members. Corticeira Amorim's evolution throughout its history shows that it is essential to understand the context in each moment and to adapt the ownership and management structure as needed, which could mean, even though constructively, removing weaker family members.

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- *Which intrinsic characteristics of this company led it to act as it did?*

The strong belief in the potential of cork as a premium, but also a sustainable product, to some extent a passion, was very important. Cork is an appealing material. It's not like plastic. ARA asked *"if you were selling plastic, would you fall in love with it?"*

However, the fact of Corticeira Amorim, despite its big size, being a FOB, played probably the major role in the sticking with cork and in the rejection of the temptation to refocus the company's activity towards other areas and materials, notably aluminium or plastic, which could have been an easier solution and a source of higher return, at least in the short-term. Corticeira Amorim thinks with a long-term horizon, including for instance a 3 years plan, but also a 2020 Ambition plan. In 2020, for instance, Amorim Cork Composites envisages a turnover of € 110M, as result of 15% on new applications, the focus on applications with high potential and on geographical expansion.

Corticeira Amorim's long term view is clearly stated in its mission, *"to add value to cork..."*, and vision, *"to generate return on capital invested in an appropriate and sustained manner"*. The company's mission is deeply embedded in every corner and at every level of the whole structure. It doesn't have to be stoppers, but it has to be cork. This belief and the group's culture is passed between generations, employees and also implanted in new companies acquired, which become part of the group.

- *How far should a company maintain its roots when the market is demanding something different?*

Sometimes the market seems to be demanding something different, but the signs it gives must be interpreted from a longer perspective. If on one hand stubbornness might lead to falling off the precipice, on the other hand precipitation is also not a good advisor. Therefore, when a company believes in its original matrix, it should exploit all the possibilities it still might have, before completely changing a business, notably because a full de-characterization of a business leads, very often, to ruin. As ARA underlines, only one of Corticeira Amorim's major competitors in the cork business that followed the path of a complete business reconfiguration is still in operation, the rest have all disappeared.

In fact, although, the cork sector was facing heavy losses of market share, of around 30-40%, there were also some signs that seemed to show a possible way out of the decreasing trend. Firstly, most customers were still showing that they pretty much prefer the sensation and joy of opening a bottle with a cork stopper. Secondly, many prestigious wine makers were still favouring cork, even while considering other alternatives for their lower range wines. Lastly, cork is a sustainable product. On the other hand, one should not just replicate others' approach, since the actors are different and the context is different. There's no one size fits all.

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However, in times of change, including of the most charismatic person in a company, it is essential to look at the organizational model and strategic planning. As explained in the case, Corticeira Amorim promoted several actions to address the market evolution and challenges, together with a change in the CEO. The paradox is that sometimes it is necessary to change something to maintain the essential.

- *Where is the frontier between an acceptable conviction in an old business and an excessive obstinacy which might lead a company to disgrace?*

Corticeira Amorim chose cork, but not blindly, something ARA insisted many times during the course of the analysis. It remained faithful to cork, but always well aware that a lot had to be done and changed, namely to improve cork stopper performance and diversify the company's offerings. However, it explored its potential strengths well. But this took its time.

So, a company may insist on maintaining its business roots, but must have the openness to identify what needs to be adapted/adjusted in its activity, and to execute it. Corticeira Amorim has invested in R&D, started testing stoppers, and changed its factories' technology and its processes. Some paradigms went away. It was a revolution, but the conviction and faith in cork has never diminished.

Therefore, a company may stick to its core product, despite the market pressure to change, but not in a traditionalist approach like "it was always like this, so like this it must remain" but, rather, explore the whole potential of what it has in its hands. Many things might have to be dropped, so that others could remain. Like a sinking boat, where some load might have to be dropped overboard, so that the whole boat doesn't sink completely. The main point, as ARA says, "*was not the belief in cork but, more than that, the belief in its potential to evolve*".

Whether the Corticeira Amorim's case and the benefits of FOBs in general is transferrable to other companies and contexts?

An important take-away of this case is the potential extension of some of its features to other companies and sectors. Students should assess:

- *To what extent is the family control of a business a competitive advantage?*
- *How far are the positive characteristics of FOBs transposable to non-family businesses? Under which conditions would they better succeed in other contexts?*
- *To what extent could we disentangle the success of Corticeira Amorim's strategic choices from its leadership position and its sector? Would they have been equally successful in other sectors?*

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How far is the case applicable to students' realities?

Before concluding the discussion and wrap up, the lecturer should stimulate students to compare the situation described in the case to their reality. Some possible questions could be the following:

- *Do they work in all FOBs?*
- *For those who do, do they feel it as a strength or as a weakness?*
- *For those who do not, do they consider that the transposition of some FOBs' features to their realities would be possible and valuable?*

1.4. Conclusion

At this stage the lecturer should recap the discussion underlining that, although companies' driving priorities may apply differently depending on their strategy, the impact of family control and of long term leadership on businesses, namely on their long term aim, is broadly recognised.

The lecturer should note how this case exemplifies well the benefits of FOBs and that, despite their specificities, they could succeed and be as powerful and dynamic (even more) as any non-family business. They just have to find the right balance between the business and the family, to turn the latter into a competitive advantage. It could be added that, in fact, the positive characteristics of FOBs can be extended to non-family businesses, although these should be able to avoid the negative effects.

FOBs need to have the openness to face the strategy and ownership at each moment, as well as the leadership succession rationally, separating family from business relations. This means always adopting a strategy, adapting the shareholders structure and choosing the leader (although this should be evident and emerge from within rather naturally, and not determined or imposed) for the benefit of the company, and not of the family. And only the family members totally committed to the company's work should be involved in its high level management, to maintain the cohesion, dynamics and strength of the business. It's the business that comes first, not the family.

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2. Strategic management

2.1. Learning objectives

Analysing the strategic evolution of the Portuguese cork industry and Corticeira Amorim – This case provides an opportunity to learn about an important Portuguese cluster, by analysing the strategy evolution of the cork industry through its history, in particular of its worldwide leadership. Corticeira Amorim has been changing and adapting, sometimes more reactively, and otherwise more proactively. Its reactive posture stemmed from the need to tackle threats stemming from external factors (such as Perestroika, cork price increase or TCA), and also due to internal reasons. Its proactive strategy was aimed at addressing strategic opportunities to increase revenues, such as diversifying its portfolio of products or internationalise.

In describing the last big change in the company, the case stresses the strategic importance of knowledge, innovation and its management, in the current phase of the company, in order to pursue its mission and to counter the threat from TCA. The company maintained its path in the exploration of cork, but in the process had to implement several changes in its practices and “modus operandi”.

Recognising the growing role of knowledge and innovation management, beyond high-tech companies – This case gives students the opportunity to discuss the growing strategic role of knowledge and innovation in companies. Based on the example of Corticeira Amorim it should further enable understanding that this importance is not restricted to high-tech industries or companies, and that industries in more traditional sectors can also benefit from a knowledge-based approach.

Understanding the differences between explicit and implicit knowledge – Knowledge in companies is much more than the data and information accessible by more obvious means, often known as explicit knowledge. Implicit knowledge (also known as tacit, amongst other designations) may be not so visible, but it is as equally important. This case should raise the awareness amongst students about the different types of knowledge in companies and their value, as well as provide some clues for companies’ change so to integrate knowledge management, including in manufacturing industries, either more or less technological.

2.2. Sources for case discussion

Corticeira Amorim’s history has gone through four main phases, whose rationale, namely the company’s choices on what, where and how to compete deserves analysis using some concepts from the strategy field as a useful framework.

In the beginning the company was mainly a cork stoppers manufacturer, at that time the sector being essentially a cork exporter. Cataluña, in Spain, was then the biggest worldwide cork transformation centre. By late 1950s, Corticeira Amorim gave a new momentum to its business, by

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strengthening its presence in the cork value chain at other levels, as well as targeting other markets. It further developed its industrial basis, with new factories, and introducing new products. Its strategy represented a more continuous process of change, innovation and productivity growth, which OECD considers necessary to move up the value chain²². That process continues till today. In fact as noted by Drucker²³, **change** is the only constant in an organization's life, and Corticeira Amorim is well aware of that need, particularly since the second half of the 20th century.

To be better able to respond to its willingness to provide new products and address new markets, Corticeira Amorim initiated a **verticalisation** strategy, notably since 1960s, mostly a forward vertical integration – first strengthening its manufacturing capabilities but, later on, also improving its distribution channels. See Harrigan²⁴ for a formulation of vertical integration strategies in general, with a focus on the 1970s and 1980s). Although Corticeira Amorim did not pretend to become a cork producer, and thereby there has not been a backward vertical integration, in a pure sense, its intervention has an impact also upward in the value chain, for instance fostering cork certification. Another aspect to be considered is Corticeira Amorim's decision to limit its cork stoppers production internal capacity to a certain threshold and the outsourcing of its needs in terms of cork stoppers' supply, to meet the demand, beyond that limit. This became a problem when customers started to question why buy from Amorim, when they could buy directly from other producers, who were also supplying to Amorim.

From Corticeira Amorim's commercial offer perspective one needs to draw attention to the company's **related diversification** strategy. According to Rothaermel²⁵ this typifying is attributable to companies where its corporate strategy derives less than 70% of revenues from a single business activity, although the other lines of business are linked to the primary business activity. Cork is at the basis of most products launched by Corticeira Amorim, but today it derives 36% (in 2015²⁶) of revenues from diversified products other than cork stoppers. The products diversification effort started more or less in the 1960s, through organic growth and also acquisitions, in both cases in Portugal and abroad. It was definitely improved since late 1990s with a significant investment increase on R&D and innovation, which allowed the launch of several new products in varied areas of business. Corticeira Amorim gave its **internationalization** strategy an important boost following Américo Amorim's first trip to Soviet Union in 1958, and definitely assumed internationalization as an important source of revenues from the late 1980s onwards. It was so much so that in 2000, two thirds of the company's sales were channeled through its network abroad. It also remains the most internationalized Portuguese company today.

²² OECD (2007).

²³ Drucker (1992).

²⁴ Harrigan (1984).

²⁵ Rothaermel (2013).

²⁶ <http://web3.cmvm.pt/sdi/emitentes/docs/FR58710.pdf>

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Throughout its life Corticeira Amorim has adopted more a differentiation strategy than simply cost leadership to sustain a competitive advantage. However, with the emergence of substitute stoppers using plastic, namely at the end of the 20th century, the company had to develop products able also to compete on price in the market segments that are price sensitive, although continuing to use cork. In a way Corticeira Amorim adopted a business-level strategy which combines differentiation and cost leadership, which some authors, such as Rothaermel²⁷, designates as **integration** strategy. This requires **ambidextrous organizations**, as described by O'Reilly et al.²⁸ which are firms with the ability to simultaneously explore and exploit. This links to Corticeira Amorim exploitation of the cork stoppers business, on one hand, and exploration of new lines of business, using cork on the other hand. The relation between **exploitation** (as using the current knowledge to improve the company's performance in the short term) and **exploration** (as searching for new knowledge to improve it in the future) in organizational learning, has also been mentioned by March²⁹.

These exploitation and exploration developments might also be seen from the perspective of **incremental and radical innovations**, as referred by Hill et al.³⁰, involving first building upon the company's available knowledge to steadily improve the product and targeting its current markets (in the cork stoppers business), while the second comprises new methods, technologies or usages that might address new markets (such as energy production, fashion or sports, among many others). A firm like Corticeira Amorim would tend to favour incremental innovation for economic, organizational and strategic reasons, given its well-established position in the market. However, the huge threat posed by plastic substitutes and a bold leadership, are also well supported by the family profile of the company, created the conditions to embark on an innovation process more radical, exploring completely new fields for cork usage.

Among the internal changes introduced by Corticeira Amorim in its innovation phase the adoption of a **Balanced Scorecard** (BSC) approach deserves a special mention. The BSC is a framework proposed by Kaplan et al.³¹ to support a more effective achievement of companies' strategic objectives. The assumption by Corticeira Amorim of a mission "*to add value to cork, in a competitive, differentiating and innovative manner, in perfect harmony with Nature*", together with its Vision, Values and the BSC implementation, denotes a commitment to the triple bottom line, popularized by Elkington³², which comprises of profits, people and planet. It implies a more integrative and holistic view in assessing a company's performance, linking to concepts such as the **stakeholders theory**,

²⁷ Rothaermel (2013).

²⁸ O'Reilly (2007).

²⁹ March (1991).

³⁰ Hill et al. (2003).

³¹ Kaplan et al. (1992).

³² Elkington (1997).

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introduced by Freeman³³, or corporate social responsibility and the creation of shared value, both referred to by Porter et al.³⁴.

Knowledge and innovation management beyond the more high tech companies

Corticeira Amorim, a traditional manufacturing company, might not be easily seen as a player in the information society and knowledge era, since there is a prevailing narrative that the more technological industries and sectors are ones that build the future. These are seen as more knowledge-intensive, while the rest seem to do involve less use of knowledge and for that reason, in a certain way, have their future endangered.

The point is that the type of knowledge generated in a sector like cork, less technological, is not considered as very important to fostering innovation like others (notably scientific-based). However, the production capacity gathers several types of knowledge, competencies and abilities. This knowledge, less theoretical, more practical, is important in many industries, and cork is an example. More often than not, it comes also from outside the boundaries of the company envisaged, involving thereby the integration of knowledge from many different sources, upward and downward in the value chain, as long as they are relevant to the final value added. Cork producers are a good example as in the case here under analysis.

Although important, R&D in itself is not seen as the foundation of innovation, but for problem-solving of last resort, as referred to by Kline et al.³⁵. As much as 80% of all development costs may fall outside the R&D statistics as noted by Laestadius³⁶.

A knowledge economy should be associated to a process whereby the economic competitiveness and performance of organisations is increasingly determined by their investment in knowledge-based or intangible assets, such as R&D, design, software, human and organizational capital and less by investment in physical assets.³⁷

The technological evolution and market changes, as well as increasingly more qualified workforces and educated/informed consumers, have been pushing the boundaries towards this knowledge economy, which some sectors, though, seem to follow more than others. And precisely low skill intensive manufacturing, for being usually lower-tech, tends to be seen as outside of this process, as previously mentioned. However, modern manufacturing not only has the potential to become, but as already several examples, like Corticeira Amorim, have shown that it is also part of the knowledge economy.

³³ Freeman (1984).

³⁴ Porter et al. (2006 and 2011).

³⁵ Kline et al. (1986).

³⁶ Laestadius (1998).

³⁷ Brinkley (2009).

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Probably, the survival of Corticeira Amorim relies on its ability to become more knowledge-intensive and responsive to the market, critical factors in the major OECD economies, as pointed out by Brinkley³⁸. The same report underlines that this is not just about technology, since the role of non-technology-based innovation is also important, especially in industries which do not typically invest heavily in R&D, but who do invest significantly in other intangible knowledge-based activities, such as design, organizational capital or brand equity. The report concludes that the exploitation and application of all forms of knowledge and technology apply across all industries.

Low and medium technology industries are of great and continuing economic importance in advanced economies. They create and deploy many forms of production-relevant knowledge, including results in basic science, and are central to the knowledge economy.³⁹

Corticeira Amorim is already taking steady steps to be able to quickly adjust their resources to benefit from technological changes in order to closely accompany the market evolution. Knowledge has an essential role pointing out the best path at each moment, in view of a permanently changing landscape. This further means that companies need to abandon their ideas of information hoarding and embrace knowledge sharing, as pointed out by Mason⁴⁰, which further adds that knowledge management is the successor to reengineering and downsizing efforts. This should advance though much beyond mere data storage and handling.

Constant adaptability will pervade all aspects of manufacturing. Products and processes will be sustainable, with built-in reuse, remanufacturing and recycling for products reaching the end of their useful lives. Closed loop systems will be used to eliminate energy and water waste and to recycle physical waste.⁴¹ For instance, most of Corticeira Amorim's energy needs are already met by using residual biomass (cork dust), which is a CO₂ neutral source of energy.

In today's economy marked by uncertainties, knowledge is possibly one of the few lasting competitive advantages also for Corticeira Amorim. Nonaka⁴² considers it the one sure source.

Types of knowledge – explicit vs implicit – and their incorporation in companies

With the creation of CORK IN, Corticeira Amorim stimulates the sharing of ideas on processes, methods and on the creation of new products or processes, to be further implemented. The importance of these knowledge management processes to create knowledge, disseminate and embody it in new technologies and products, have been mentioned by Mason⁴³.

³⁸ Brinkley (2009).

³⁹ Hirsch-Kreisen et al. (2003).

⁴⁰ Mason (1999).

⁴¹ UK Government Office for Science (2013).

⁴² Nonaka (1991).

⁴³ Mason (1999).

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Ideally though, companies should prepare themselves to benefit from explicit, and also from implicit knowledge. Explicit might be considered to be the most “traditional” forms of knowledge, more formal and systematic (e.g. hard data). Implicit (partly technical skills), or tacit, is not so obvious, it is not as conscious as the explicit, but it is as powerful. An employee may have it, but may not be able to easily convert it into something transmissible to others in the company. Ultimately, he or she might even not be aware of it.

Tacit knowledge is more personal, experiential, context specific, and hard to formalize. Some academics consider there is a “knowledge grid” with four categories: *“what we know we know; what we know we don't know; what we don't know we know; and what we don't know we don't know.”*⁴⁴

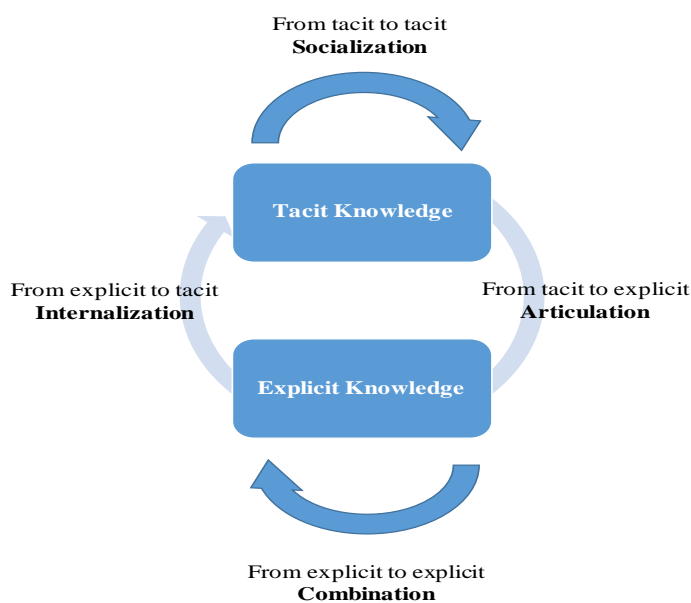


Figure 11 – Four patterns for creating knowledge in an organization in dynamic interaction⁴⁵

Middle managers synthesize the tacit knowledge of both frontline employees and senior executives, making it explicit, and incorporating it into new technologies and products, thus being the true “knowledge engineers” of the knowledge-creating company, as considered by Nonaka⁴⁶. However, the development of the company’s knowledge base also stems from beyond its frontiers, which is clear in Corticeira Amorim’s interaction- upstream, with cork producers and, downstream, with wine producers who are clients of its cork stoppers business. This links to the enhancement of firm innovativeness thanks to its network activities with external organisations as mentioned by Dilling-Hansen et al.⁴⁷.

⁴⁴ Mason (1999).

⁴⁵ Built from Nonaka (1991).

⁴⁶ Nonaka (1991).

⁴⁷ Dilling-Hansen et al. (2011).

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2.3. Roadmap for case analysis/discussion

The following case analysis plan is conceived for a 90 minutes time slot and addresses mainly the case's strategy, but also change, elements. Schematically the plan is the following:

Phase	Topics / Questions suggested	Duration
Introduction	<ul style="list-style-type: none">• <i>Wine consumption, awareness to the variety of stoppers and TCA problem.</i>	15 min
Phases in the cork industry and Corticeira Amorim history	<ul style="list-style-type: none">• <i>What better characterises each phase of the cork industry and, namely, Corticeira Amorim went through during its life, notably from a strategy perspective?</i>• <i>What were the main drivers for change, and in particular the external ones?</i>	20 min
Manufacturing sector role in the knowledge economy	<ul style="list-style-type: none">• <i>To what extent is the traditional manufacturing sector able to play a role in the knowledge economy?</i>• <i>Does a manufacturing company really need a knowledge and innovation oriented culture?</i>	20 min
Knowledge-based approach implementation	<ul style="list-style-type: none">• <i>How can a manufacturing company incorporate a knowledge-based approach in its "modus operandi", notably vis-a-vis explicit and implicit knowledge?</i>	20 min
Appropriateness to tackle future challenges	<ul style="list-style-type: none">• <i>Is Corticeira Amorim ready to tackle the coming challenges, notably the increasing price pressure from competitive products?</i>• <i>How future-proof is its strategy and approach to evolving market conditions?</i>• <i>Should it keep focused on the TCA problem and technical performance? Is it still a technical problem or also/mainly a communication issue?</i>• <i>Should it further explore its strengths on sustainability and tradition?</i>• <i>Will the cork stoppers business remain as the company's cash cow, in the long term? Or will other cork products prevail?</i>	5 min
Applicability to students' reality	<ul style="list-style-type: none">• <i>Is knowledge management appropriately handled in their companies?</i>• <i>If so, is it both the explicit and implicit? Or is it mostly the former?</i>• <i>If not, do they consider it valuable? And if that's the case, how could it be improved?</i>	5 min
Conclusions	<ul style="list-style-type: none">• <i>Knowledge management benefits.</i>• <i>Knowledge implicit vs explicit.</i>	5 min

Table 3 - Case analysis/discussion plan to address strategy elements

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In what follows, the plan is presented in more detail:

Introduction

The debate amongst students could be kicked-off by asking them if they like wine, and, if so, if they have ever noticed the variety of stoppers available, not only between different types of wines (red, white, champagne, liquors, etc.), but even within the same type of wines, depending upon its category, country of origin or only the wine producer choice.

Furthermore, even before entering into the case, the instructor could ask the students if they know the several materials used nowadays to produce bottle stoppers (namely cork, plastic and aluminium), including some more innovative solutions, and if they cared about it when they purchase wine. Students might still be asked about the advantages/disadvantages of the several materials, both from maintaining the wine quality and economic perspective, but also from the environmental and social one. Finally, students could be asked if they have ever heard about and know what is TCA, as well as if they are aware of how it can affect wine and, ultimately, a whole region.

Which main phases did the cork industry and Corticeira Amorim in particular, go through during its life?

Students should now be guided through the most descriptive part of the case and answer the following questions:

- *What better characterises each phase that the cork industry and, namely, Corticeira Amorim went through during its life, notably from a strategy perspective?*
- *What were the main drivers for change, and in particular the external ones?*

1st phase – Cork exports (until the 1960s) – In its first almost 100 years Corticeira Amorim was a cork stopper manufacturer and a cork exporter. The product was sold with no big added value. At that time Cataluña was the biggest cork transformation centre worldwide.

2nd phase – Development of the industrial basis (1960s – 1980s) – A trip to some Eastern Europe countries leads to a change in the company's strategy fostering the verticalisation of the business. A new mantra was assumed advocating more markets, clients, countries and products. To achieve it, Corticeira Amorim needed a much stronger and broader industrial basis. In the 1980s, cork was exported mostly already manufactured, allowing the retention of more profits in Portugal.

3rd phase – Internationalisation (late 1980s and 1990s) – Perestroika's negative impact on Corticeira Amorim's positioning in Eastern Europe markets and its strategic decision to replace a significant part of the internal production capacity by the purchase to external cork stoppers

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jeopardized the business, since clients started to question why buy from the company. The group decided therefore to definitely internationalize the business, simultaneously further diversifying it in terms of new products derived from cork.

4th phase – Innovation (since late 1990s) – A huge increase in cork demand fuelled by some countries where the consumption had risen dramatically, pressured the raw material price, and consequently cork stoppers' price. At the same time, TCA was considered to damage the taste of the wines bottled with cork stoppers. Corticeira Amorim was challenged to tackle the problem of TCA, as well as to find alternative products to compete with the cheaper plastic, but at the same time would also possess the versatility of aluminium, stoppers. It needed to strengthen its R&D and innovation efforts. The adverse external conjuncture together with the succession of the CEO fostered a strategic change at Corticeira Amorim in the beginning of the 21st century, changing it from simply a cork stopper business into a knowledge company, whose mission was to add value to cork. This period has extended till today.

Whether the traditional manufacturing sector also plays a role in the knowledge economy?

After identifying the several phases of evolution of Corticeira Amorim, students should now focus their attention on the very last one to understand the growing strategic role of knowledge and innovation, up to a point where it became a competitive advantage, despite being a manufacturing company. From there students should develop the understanding that this extends to the manufacturing sector in general. The second part of the case provides already some tips to guide the reflection. A first set of questions could revolve around the following:

- *To what extent is the traditional manufacturing sector able to play a role in the knowledge economy?*

In Corticeira Amorim, the huge increase of the cork price, with its, short-term, impact, and the problem of TCA, with potential short and long term effects, were the *leitmotiv* to push R&D as the last resort to find a solution to tackle these problems, which the company was not able to address with the knowledge and skills it had at that time.

Despite its family profile or perhaps because of that, Corticeira Amorim was able to take decisive steps on R&D and innovation and to reorganize the company to face the emerging challenges, incorporating knowledge as a source of competitive advantage.

Perhaps Corticeira Amorim's investment in R&D, although increasing, is not as high as in other industries. However on one hand, it is already quite significant and on the other hand one should not confine the analysis of development's efforts to the amount invested on R&D. We should rather consider the ratio between all the investment in intangible and tangible assets.

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Corticeira Amorim is a good example that counters the myth that manufacturing companies, in general, are actors on the sidelines of the knowledge era. It unveils the knowledge potential of manufacturing (exactly as a competitive advantage to counter decreasing trends) and to incentivize other manufacturing companies to explore it, by adopting new business models based on larger investments in knowledge-based assets than before. Becoming more knowledge-based, exploiting and deploying its knowledge and technology base, can make the difference between a company's survival (and even growth) or languishment and an eventual slow demise.

- *Does a manufacturing company really need a knowledge and innovation oriented culture?*

Corticeira Amorim, which has embarked upon a strategy based on knowledge and innovation, well illustrates the benefits of that choice also in a manufacturing company. By embodying a mission of adding value to cork (and not just simply manufacturing cork stoppers), it constantly researches and develops new forms of exploiting the full potential of cork.

Alongside its direct market aim, knowledge and innovation also bring benefits to the sustainable orientation of Corticeira Amorim, which ultimately impacts the market equally, since clients are increasingly sensitive to sustainability concerns. By promoting the cork cyclical harvest, the company makes the cork oak forest – a natural and renewable resource – viable, with environmental, economic and social benefits. Besides the direct benefits of cork extraction, which increases CO₂ retention, Corticeira Amorim has furthermore implemented an integrated production process, through which it ensures the reuse of all the by-products that result from cork processing. Among others activities, it recycles cork stoppers – which are then treated and ground up for subsequent uses (in coverings, insulation, sports equipment, transports components, design and fashion, etc.) – and it uses biomass (cork dust) to satisfy 60% of the company's energy needs.

Manufacturers should therefore reposition themselves given the changes emerging in the economy and society. And, furthermore, they may benefit from knowledge well integrated in the social system of their companies, which is thereby difficult to be accessed by competitors. Corticeira Amorim is a paradigmatic example, a living proof that manufacturing companies may also (in fact they should) embrace, benefit from, and even be an important contributor to the knowledge era.

How can a manufacturing company incorporate a knowledge-based approach in its “modus operandi”?

After discussing and recognising the importance of knowledge also for manufacturing companies, students can be called upon to elaborate about the way to integrate knowledge and innovation management in a company.

- *How can a manufacturing company incorporate a knowledge-based approach in its “modus operandi”, notably vis-a-vis explicit and implicit knowledge?*

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To mobilise knowledge and skills, firms must have strategies to innovate, envisaging namely the change of their traditional organizational and staff structures, as well as of the way they use technologies. Concerning work organisation, traditional chains of control and coordination have to be complemented with less direct forms, which require however, a bigger involvement, compromise and motivation of the employees. Also important is the participative use of ICT, as well as the bigger role of organisational culture and inter-organisational production networks.

Companies should also be aware of and recognise the existence of both, explicit and implicit knowledge, the latter normally less evident than the former, but equally important, namely in manufacturing companies. For instance a craftsman may learn some implicit skills through observation outside the company, which he then converts into explicit knowledge and share it with his team. This can be then standardized by the company developing it into work guidelines (a sort of manual of best practices), and finally by following these practices it is expected that other colleagues would internalize them, ultimately becoming implicit knowledge, often also known in the literature as tacit knowledge.

Nevertheless, irrespective of its designation, what matters is that within companies, notably manufacturers, there is still an important role for traditional engineering in the creation of that kind of knowledge, and companies should develop means and capabilities to benefit of it.

Finally, collaboration with external stakeholders – backward and forward in the value chain, i.e. with providers and distributors/customers – also adds value and knowledge in areas where the company may be more limited. Ultimately, the several stakeholders end up sharing common values. This is the case, in Corticeira Amorim, of its strong cooperation with cork producers and also wine producers, which led to cork certification and all the knowledge already generated around it for the sector as a whole.

To what extent is Corticeira Amorim's strategy appropriate to tackle future challenges?

After discussing the importance of knowledge management nowadays, also in companies like Corticeira Amorim, students could briefly elaborate on the appropriateness of the company's strategy, to address the future, namely considering that it is already exploiting the knowledge around cork.

- *Whether Corticeira Amorim is ready to tackle the upcoming challenges, notably the increasing price pressure from competitive products?*
- *How future-proof is its strategy and approach in the evolving market?*
- *Should it keep focused on the TCA problem and technical performance? Is it still a technical problem or also/mainly a communication issue?*
- *Should it further explore its strengths on sustainability and tradition?*

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- *Will the cork stoppers business remain the company's cash cow, in the long term? Or will other cork products prevail?*

How far is the case applicable to students' realities?

Before concluding the discussion and wrap-up, the lecturer should stimulate students to compare the situation described in the case to their own reality. Some possible questions could include the following:

- *Is knowledge management appropriately handled in their companies?*
- *If so, is it both the explicit and implicit? Or is it mostly the former?*
- *If not, do they consider it valuable? And if that's the case, how could it be improved?*

2.4. Conclusion

At this stage the lecturer should recap the several phases and strategic choices the company went through underlining its efforts of verticalization, internationalization, diversification and innovation.

It should be stressed, in particular, how this case illustrates well the importance and benefits of innovation and knowledge management. It should be further underlined that knowledge and innovation are transversal and valuable to any company. Hence companies should consider incorporate knowledge, both in its explicit and implicit form, in their “modus operandi”, where it is not yet the case.

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CONCLUSION

The belief in cork and, in particular, the family's role influenced the choice to stick to cork. As a result, knowledge, innovation and its management became strategic for the company to pursue its mission. At the end of the day the family profile had a strong contribution to the conversion from a cork manufacturer into a knowledge company.

The case shows the impact of family control and long term leadership on businesses, namely on their long term aim and often almost devotion to the business core, at the same time contesting some misconceptions about FOBs, and conversely underlining their potential to grow, evolve and be innovative. In fact, not only FOBs have several benefits and positive characteristics, but moreover these could be, in a way, extended to non-family businesses, although they should be able to avoid the negative effects. FOBs need to be able to separate family from business and behave always rationally, for the benefit of the company, and not of the family. This is particularly sensitive namely regarding the strategy, choice of the leader and shareholders structure.

The case also illustrates the strategic importance and benefits of knowledge management, further stressing that knowledge and innovation management are valuable to any company, including FOBs and lower tech companies. Hence, companies, in general, should consider incorporate knowledge, both in its explicit and implicit form, in their "modus operandi".

Main limitations

This work project, given its assumed format – a case study based on a management problem faced by a company and the way it was tackled – does not rely on a direct collection of data from a sample of companies in a comparable situation. It fulfils however its aim of stimulating a debate amongst students within the context of, at least, two broad areas: FOBs and Strategic management.

Areas for further development

The case has references to the cork's economic, but also social and environmental, value, as well as to Corticeira Amorim's major role in these three domains, given its leadership position in the sector. These fields, which are only very briefly mentioned in the Teaching Note, could be a third option to debate the case, going through subjects, such as business sustainability and corporate social responsibility, among others.

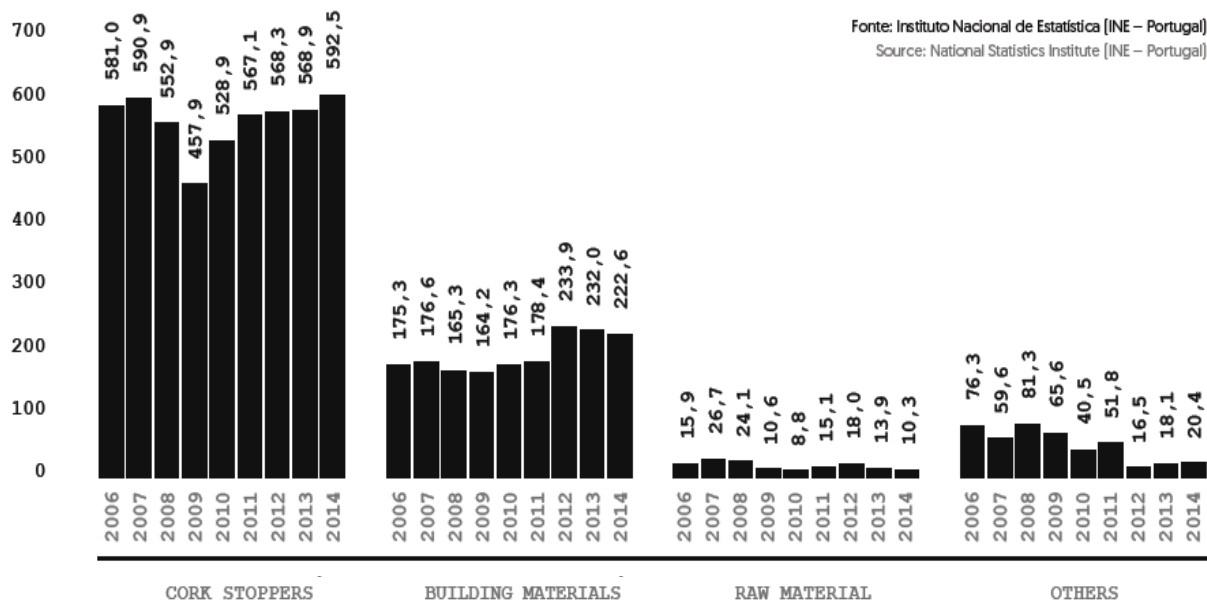
Another perspective to debate the case was the evolution of the shareholders structure, as well as the leadership succession. Both themes are also touched upon in the case, but could be further deepened.

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EXHIBITS

Exhibit 1. Main cork products exported from Portugal (million €)



Source: *Cork Yearbook 2015*. APCOR.

Exhibit 2. Cork oak forest area

PAÍS COUNTRY	ÁREA AREA (HECTARES - HA) *	PERCENTAGEM PERCENTAGE
PORTUGAL	736.775	34%
ESPAÑA SPAIN	574.248	27%
MARROCOS MOROCCO	383.120	18%
ARGÉLIA ALGERIA	230.000	11%
TUNÍSIA TUNISIA	85.771	4%
FRANÇA FRANCE	65.228	3%
ITÁLIA ITALY	64.800	3%
TOTAL	2.139.942	100%

* Fonte: Portugal: IFN, 2013; Espanha: MARM, 2007; Itália: FAO, 2005; França: IM Liège, 2005; Marrocos: HCEF Marroc, 2011; Argélia: EFI, 2009; Tunísia: Ben Jamaa, 2011.

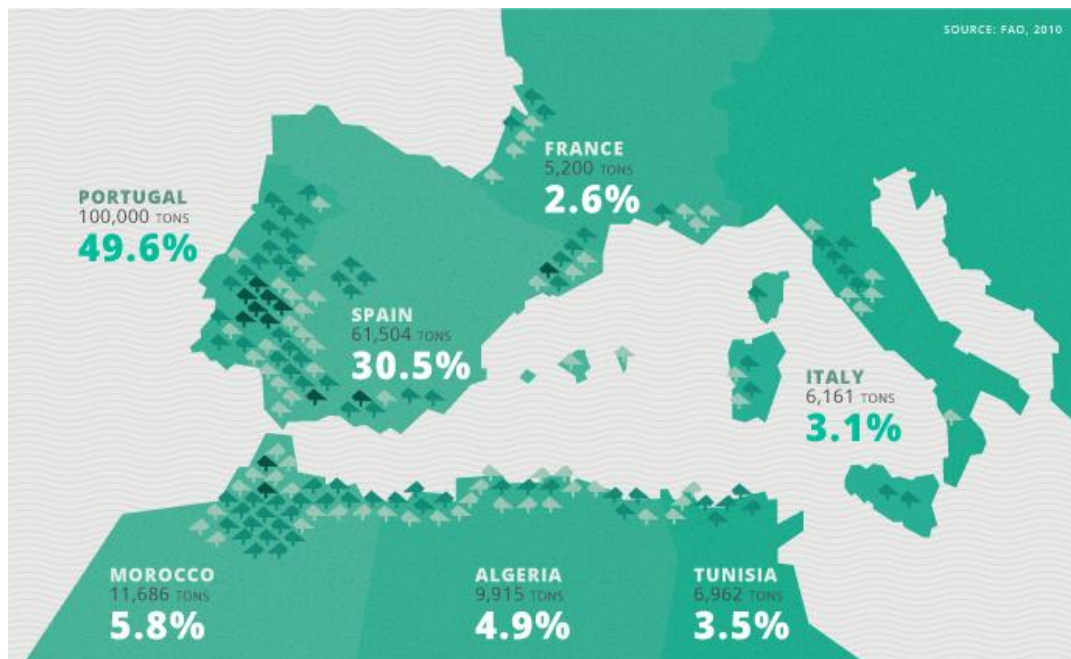
* Source: Portugal: IFN, 2013; Spain: MARM, 2007; Italy: FAO, 2005; France: IM Liège, 2005; Morocco: HCEF Marroc, 2011; Algeria: EFI, 2009; Tunisia: Ben Jamaa, 2011.

Source: *Cork Yearbook 2015*. APCOR.

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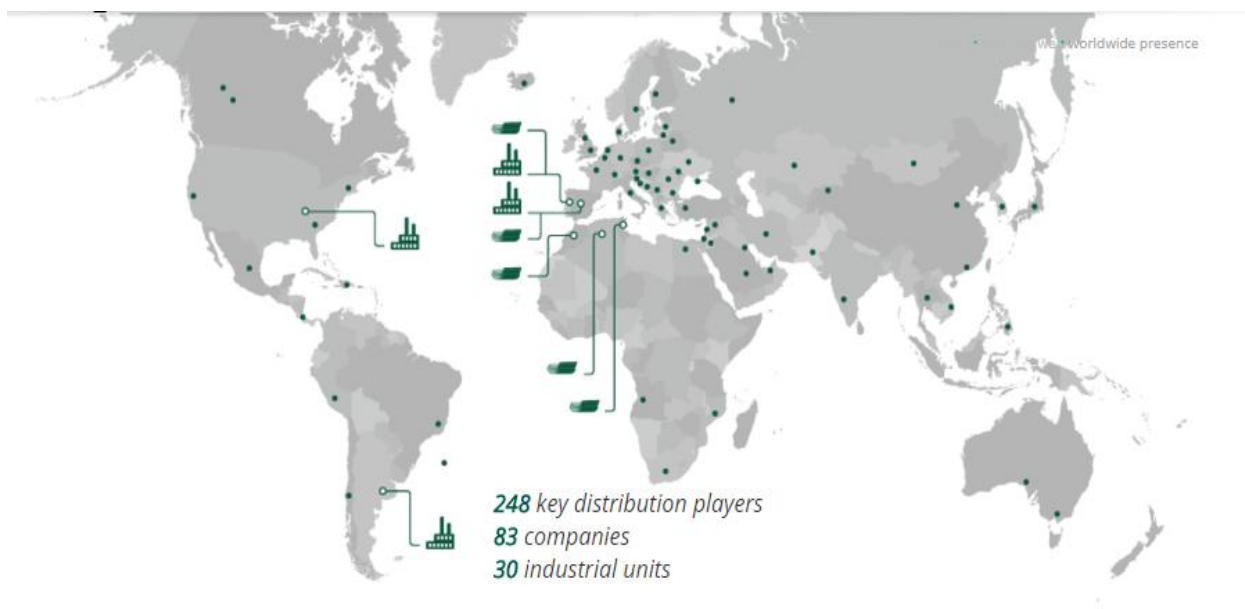
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Exhibit 3. Annual cork production by country



Source: Corticeira Amorim - <http://www.amorim.com/en/why-cork/cork-oak-forest-area/>, accessed October 29, 2015.

Exhibit 4. Corticeira Amorim worldwide presence



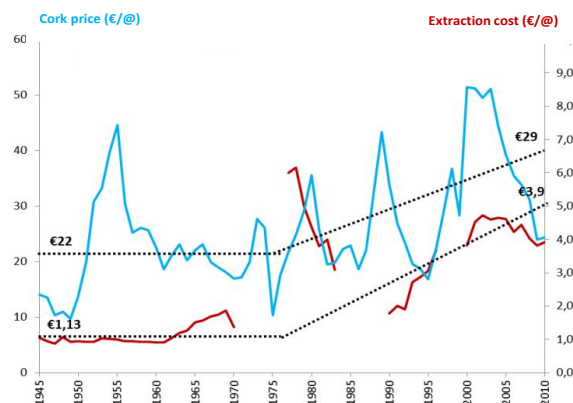
Source: Corticeira Amorim - <http://www.amorim.com/en/who-are-we/worldwide-presence/>, accessed October 29, 2015.

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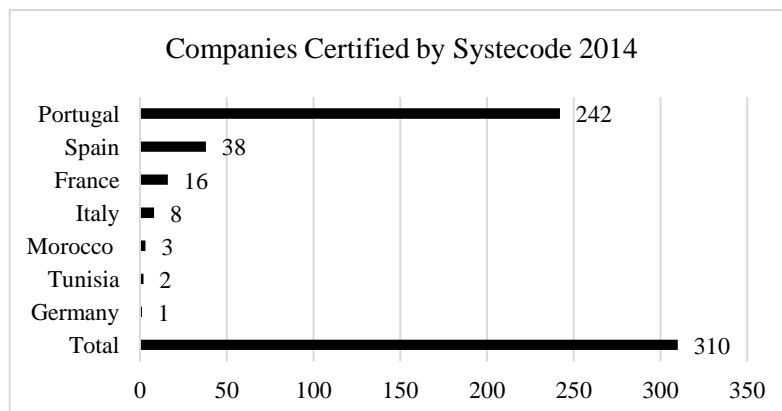
Exhibit 5. Evolution of the cork price (“amadia na pilha”) and of the cork extraction cost

“Amadia” means the cork derived from the third or following extractions, since the first two are not appropriate, for instance, to produce cork stoppers. “na pilha” means the price of the cork extracted, since in the past it was quite usual to purchase the cork still at the tree. However, this practice has been declining.



Source: *Análise do setor e da fileira da cortiça*. Autoridade da Concorrência (Portuguese Competition Authority), 2012, based on the following data: Cork price – until 2001: Mendes (2002)^{xv}; after 2001: APCOR. Extraction cost – until 1999: Mendes (2002); from 1999 to 2008: APCOR; from 2009 to 2010: UNAC (União da Floresta Mediterrânica).

Exhibit 6. Companies certified by Systecode in 2014



Source: APCOR - <http://www.apcor.pt/en/cork/quality/certification/>, accessed January 25, 2016. Based on data from C.E. Liège.

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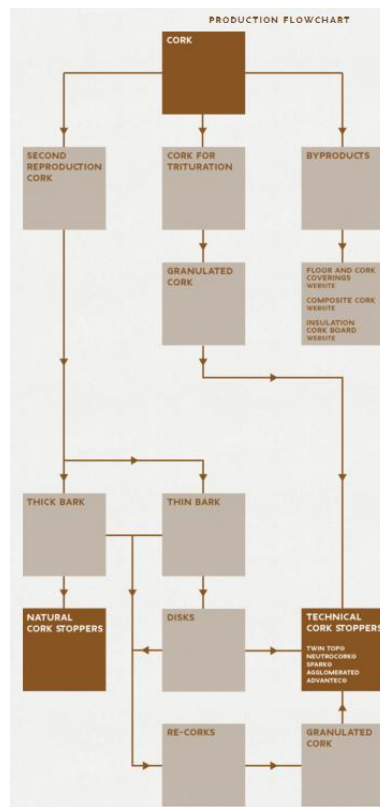
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Exhibit 7. Corticeira Amorim's range of cork stoppers



Source: Corticeira Amorim - <http://www.amorimcork.com/en/products/catalogue/>, accessed January 25, 2016.

Exhibit 8. Corticeira Amorim's production flowchart

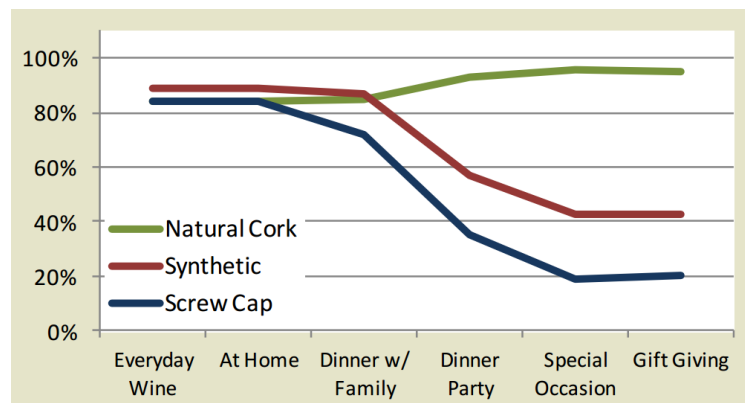


Source: Corticeira Amorim - <http://www.amorimcork.com/en/natural-cork/raw-material-and-production-process/>, accessed January 25, 2016.

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Exhibit 9. Preferred occasion of use by closure (in USA)



Source: *US Wine Consumer Attitudes of Wine Closures*. Cork Quality Council (2015), based on data from Tragon Corporation, 2011.

Exhibit 10. Sales Revenues amongst Top 100 Premium Brands

4 weeks ending	12-06-2014	12-12-2009	Change
Cork stoppers	\$ 134,743,914	\$ 94,931,150	41.9%
Alternatives	\$ 86,010,810	\$ 70,212,458	22.5%
Total Top 100	\$ 220,754,724	\$ 165,143,608	33.7%

Source: *Cork Finished Brands Continue Sales Success*. Cork Quality Council (2015), based on data from A.C. Nielsen.

Exhibit 11. CO₂ emissions by life cycle stage

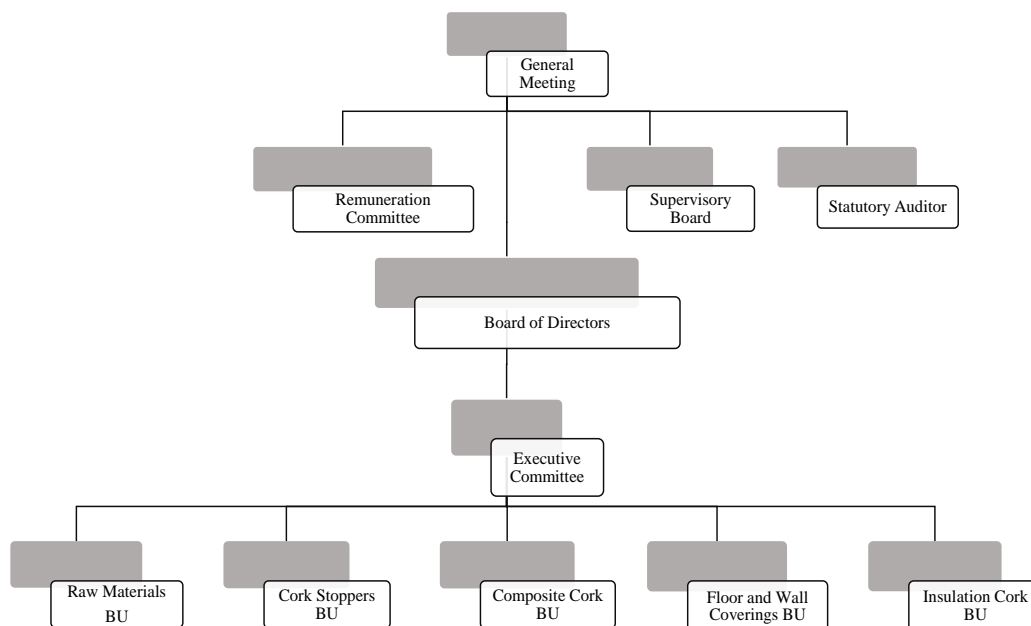
	Cork	Plastic	Aluminium
Production	-3 280.5	12 618.3	36 701.0
Transport	920.9	323.1	439.4
Bottling	3 272.3	3 272.3	0.0
End of Life	524.0	1 497.5	20.3
Total CO₂ Emissions (g/1000 Stoppers)	1 436.7	14 716.2	37 160.7

Source: *Technical Guide Cork Stoppers*. APCOR (2011), based on data from Annual APCOR 2009, adapted by PriceWaterhouseCoopers/ECOBILAN.

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Exhibit 12. Corticeira Amorim overall structure



Source: Corticeira Amorim 2014 Corporate Governance Report.

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Exhibit 13. Corticeira Amorim Group Business Units

Raw Materials Business Unit (BU) – It was created in 2002 to ensure a global and integrated management of cork's value chain. It extends across the company, enhancing synergies between all the units and optimizing the flow of raw materials. It has diversified the supply sources, intervening in all the cork production regions, with a very close relationship with producers.

Cork stoppers BU – It integrates dozens of production and distribution companies in wine producing countries, who sell to over 15 000 clients in 82 countries, a wide range of stoppers, ranging from the traditional natural cork stoppers to technical stoppers, such as *Twin Top*®, champagne and sparkling wine cork stoppers, capsulated cork stoppers or the most recent *Helix*®. The latter was developed in partnership with Owens-Illinois Inc.. It is an innovative solution that, using an ergonomically designed cork stopper and a glass bottle with internal threaded neck, does not require a corkscrew. It combines the benefits of cork and glass – in terms of quality, sustainability and premium image –, with the advantages of an easy opening and stopper reinsertion.

Floor & wall coverings BU – It produces and distributes cork floor and wall coverings, operating in over 50 countries. It combines traditional methods with cutting-edge technology to provide products renowned for its quality and innovation. Amorim's cork was used, for instance, on the flooring of the church of Sagrada Familia in Barcelona.

Composite cork BU – It is the most technological area of the group. It develops new cork composite solutions, for cutting-edge projects that based on cork technical features increase their added value. It has partnerships in sectors like transports, aerospace industry, construction and design, being a provider, for instance, to NASA.

Insulation cork BU – It is dedicated to the production of acoustic and thermal insulation agglomerates. It develops new products and applications (notably for walls and roofs) where environmental protection and natural resources conservation are a concern.

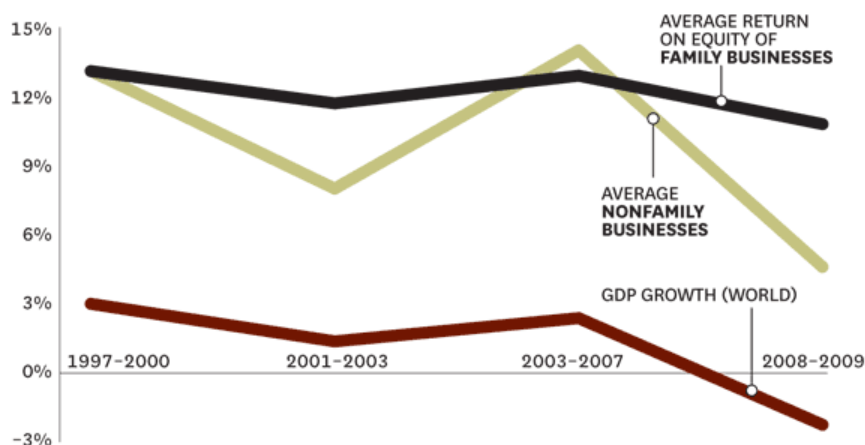
Source: Corticeira Amorim - <http://www.amorim.com/en/>, accessed November 2, 2015.

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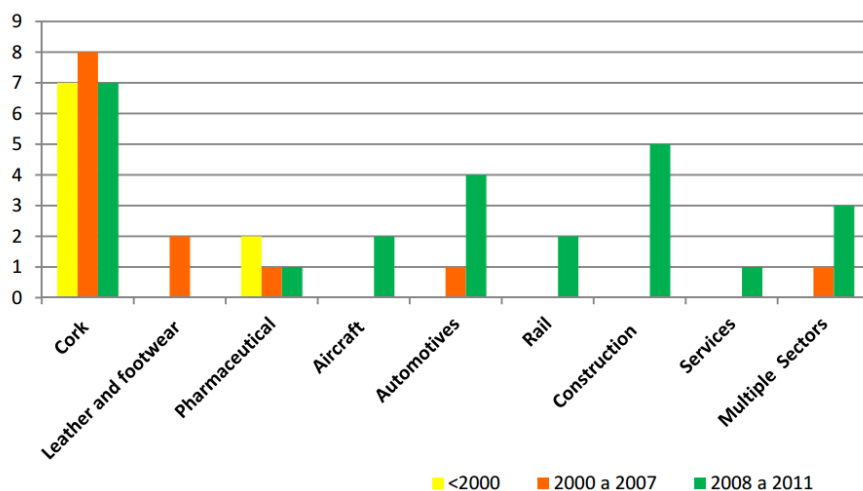
Exhibit 14. Average ROE of family businesses vs non-family businesses.

A study of 149 publicly traded family businesses (based in US, Canada, France, Spain, Portugal, Italy and Mexico), with revenues above \$1 Billion, *vis-a-vis* a comparable group of non-family businesses showed that during good economic times family businesses don't earn as much money, but when the economy slumps they far outshine their peers. The same study shows that the average long-term financial performance from 1997 to 2009 was higher for family businesses than for non-family businesses.



Source: Nicholas Kachaner, George Stalk & Alain Bloch. *What You Can Learn from Family Business*. Harvard Business Review, November 2012, Vol. 90 Issue 11, pp. 102-106.

Exhibit 15. R&D projects with the participation of cork companies



Source: *R&D made an important contribution to the recovery of the cork sector in Portugal*. Agência de Inovação (Portuguese official innovation agency), 2011.

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NOTES

Main sources

Milestones, data, technical information and insights from the company's evolution exposed in the case and teaching note were extracted, except where otherwise indicated, from the company's websites <http://www.amorim.com/en/> and <http://www.amorimcork.com/en/>, and, in particular, from interviews.

The case and teaching note are mostly based, as primary data source, on a big interview, conducted on March 17, 2015, with António Rios de Amorim (ARA), CEO of Corticeira Amorim, S.G.P.S., S.A.. It provided a bulk of data and, in particular, valuable insights from the company's evolution, some of which were selected to prepare the more descriptive sections on the company's history. ARA's more impacting statements are mentioned as quotations.

A complementary interview with Miguel Cabral (Director of R&D at Amorim & Irmãos, S.A.) took place on 29 April 2016, allowing the confirmation of some understandings stemming from the interview and the subsequent readings. A final check done with the kind collaboration of the staff of Amorim & Irmãos, S.A., helped to fine tune the case and teaching note, notably where some information was lacking.

Other information and data from the company's history and from the sector was compiled from published sources duly referred throughout the text and listed in the following section, Other Sources. For the data collected on the web, the searches took place between October 2015 and April 2016.

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Other sources

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- ⁱⁱ *Portuguese Forest Yearbook 2013*.
- ⁱⁱⁱ Portuguese School of Agriculture (2014).
- ^{iv} *Estudo de Caracterização Setorial. Estatísticas e Prospetiva 2015*. APCOR.
- ^v *Cork Yearbook 2015*. APCOR.
- ^{vi} Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of Twenty-First Century Business*. Capstone, Oxford.
- ^{vii} Comissão de Mercado de Valores Mobiliários (Portuguese securities market commission) – <http://web3.cmvm.pt/sdi/emitentes/docs/FR58710.pdf>.
- ^{viii} *Boletim da Junta Nacional da Cortiça*, 49 (1942).
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- ^x <http://www.sustainability.amorim.com/en/approach/chairman-s-message/>
- ^{xi} APCOR – <http://www.apcor.pt/en/cork/quality/certification/>.
- ^{xii} *Portugal Global* (Outubro 2008). AICEP.
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